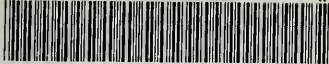
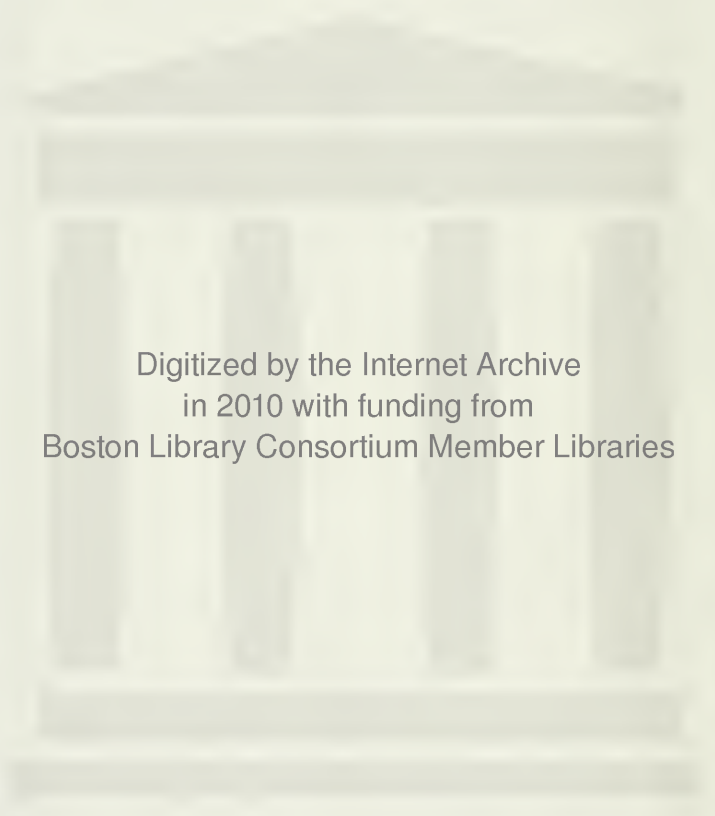


* UMASS/AMHERST *



312066 0285 1958 6



Digitized by the Internet Archive
in 2010 with funding from
Boston Library Consortium Member Libraries

ELEVENTH ANNUAL REPORT

OF THE

BOARD OF RAILROAD COMMISSIONERS.

JANUARY, 1880.

BOSTON :

Rand, Aberg, & Co., Printers to the Commonwealth,
117 FRANKLIN STREET.
1880.

CONTENTS.

	Page
INDEX TO REPORT	v
REPORT OF COMMISSIONERS, ...	1
APPENDIX:	
A.— Terminal Facilities for Freight of Railroads in Boston	71
B.— Receipts of Grain in Boston for nine years	77
Receipts of Grain at Five Principal Ports for ten years	81
Exports of Grain from Five Principal Ports for seven years	82
Domestic Exports from Boston for ten years	83
C.— Tabular Statements of Accidents in Massachusetts	84
“ “ “ “ for ten years.	89
“ “ Train Accidents in United States	92
D.— New Construction and Examination of Railroads	101
E.— Special Reports on Accidents:	
On Boston, Barre & Gardner Railroad	197
At a highway crossing of Fitchburg Railroad	198
On the Old Colony Railroad	202
F.— Report on complaint relative to Fencing of the Boston & Albany Railroad	205
G.— Railroad signals	208
H.— Reports on Complaints, Petitions, &c.:	
Proposed extension of D Street in South Boston across the Old Colony Railroad at grade	213
Depot Accommodations on Eastern Railroad at Revere	217
Location of station on Boston, Revere Beach & Lynn Railroad at Orient Heights	220
Willard & Company (expressmen) petitioners, vs. the Old Colony Railroad Company	222
Petition of the Massachusetts Central Railroad Company for fixing of route in Belmont	223
Application for a grade-crossing of the Boston & Providence Railroad by a town-way in Attleboro'	225
Whistling of Locomotives	227
Relocation of Passenger Station in Littleton	230
Highway crossing of the Grand Junction Railroad near Cottage Farm Station	233

EC 19 1942 Gift

CONTENTS.

	Page
Petition of the selectmen of Abington, &c., for an earlier morning train to Plymouth and a later afternoon train from Plymouth	234
TABULATED STATEMENT of railway and railroad returns	113
Contents of Tables	114
Abstract of street railway returns	120
Comparative statement from street railway returns	138
Tabulated statement compiled from railroad returns	146
Summary from returns of 1878 and 1879, &c.	184
Comparative results compiled from railroad returns	190

INDEX.

- Abington, and other towns, petition of selectmen of, for earlier trains to
Plymouth, 234.
- Abstract of street railway returns, 120-137.
railroad returns, 145-182.
- Accidents, statistics of, in Massachusetts, 21-23, 84-91.
in United States, 23-25, 92-100.
in Great Britain, 22.
comparative immunity from, in Massachusetts and Great Britain, 22.
to passengers during year, 21, 84.
ratio of, to number carried, 22.
to employés, 22, 23, 84-86, 91.
at highway crossings, 22, 23, 86, 90.
to trespassers, 22, 86, 90.
imperfectly reported by railroad companies, 23.
tabular statement of, for year, 84-88.
for ten years, 89, 90.
- train, classification of, 23, 24, 88, 92-95.
persons killed and injured by, for seven years, 23.
in United States, increase in number of, 23.
on the Boston, Barre & Gardner Railroad, near North Worcester,
197.
at highway crossing of the Fitchburg Railroad in Lincoln, 198.
on the Old Colony Railroad at Brockton, 202.
on street railways, 136.
- Annual returns of railroads, tabulated statement compiled from, 146-182.
tabulated comparative results compiled from, 190-194.
- Ashburnham Railroad, abstract of annual return of, 158.
- Assets and liabilities of railroads, 184 (*see abstract of returns of the several
roads*).
- Assets and liabilities of street railways (*see abstract of street railway returns*).
- Attleborough, report on proposed grade-crossing of Boston & Providence Rail-
road in, 225.
- Attleborough Branch Railroad, annual return, liabilities, and assets of, 176.
- Automatic signals not relied on in Europe, 40.
no system of, perfect, 41.
useful as auxiliaries, 41.
(*See Signals.*)
- Baggage cars, number of, 14.
cost of repairs of, per train mile, 192.

- Baltimore, receipts of grain at, during ten years, 81.
 exports of grain from, during seven years, 82.
- Bean's atmospheric signals, 40, 153.
- Belmont, route of Mass. Central Railroad in, 223.
- Berkshire Railroad, liabilities and assets of, 176.
- Boiler explosions, 25.
 statistics of, 99.
- Block system of interlocking switches and signals, 31-33.
- Board of Railroad Commissioners, power and duty of, as to new railroads, 41-48.
- Boston, receipts of grain in, 18.
 compared with other seaports, during ten years, 81.
 for nine years, 18, 77-80.
 increased export trade of, 20.
 advantages of export trade to, 19, 20.
 exports of grain from, during six years, 82.
 terminal facilities at, 17, 71-76.
- Boston & Albany Railroad, cost of trains per mile run on, 8.
 earnings of, per train mile, 10.
 average rates of fare and freight on, 12, 13.
 reduction of freights on, 13.
 terminal facilities of, in Boston, 17, 71.
 complaint against, for not fencing, 26, 205.
 permanent improvements on, 106.
 abstract of annual return of, 154.
 report on working of electric signals on, 210.
- Boston, Barre & Gardner Railroad, accident on, 197.
 abstract of annual return of, 158.
- Boston, Clinton, Fitchburg & New Bedford Railroad, abstract of annual return of, 162.
- Boston & Lowell Railroad, cost of trains on, per mile run, 8.
 earnings per train mile, 10.
 average fares and freight on, 12, 13.
 terminal facilities of, in Boston, 17, 72.
 permanent improvements on, 106.
 abstract of annual return of, 154.
- Boston & Maine Railroad, cost of trains on, per mile run, 8.
 earnings per train mile, 10.
 average rate of fares and freight on, 12, 13.
 reduction of freights on, 13.
 terminal facilities of, in Boston, 17, 73.
 abstract of annual return of, 154.
- Boston & Providence Railroad, cost of trains on, per mile run, 8.
 earnings per train mile, 10.
 average fares and freight on, 12, 13.
 reduction of freight on, 13.
 terminal facilities of, in Boston, 17, 73.
 permanent improvements on, 107.
 abstract of annual return of, 158.
 report on proposed grade-crossing of, in Attleborough, 225.
- Boston, Revere Beach & Lynn Railroad Company, improvements on, 108.
 abstract of annual return of, 174.
 report on remonstrance against location of station on, at Orient Heights, 220.
- Boston, Winthrop & Point Shirley Railroad, abstract of annual return of, 174.

- Branches of railroads, 146-153.
- Bridges, cost of repairs of, per train mile, 9.
- Briggs, Geo. P., complaint of, against Boston & Albany Railroad, 26, 150.
- Buildings, cost of repairs of, per train mile, 9, 128.
- Business, volume of, on railroads, 7.
- Capital (*see Stock*).
- Carelessness, accidents occasioned by, 24.
- Cars owned by railroads, 14.
 by street railways, 16, 134.
 cost of repairs of, per train mile, 9.
 per car, 193.
- Casualties (*see Accidents*).
- Cattle on track, accidents occasioned by, 24, 98.
- Cheshire Railroad, abstract of annual return of, 162.
- Collision, accidents by, 23, 24.
 statistics of, 88, 92, 98.
- Color-blindness, special report on, 53-66.
 a possible cause of accident, 55.
 no accident clearly traced to, 55.
 necessity of examination of railroad employes as to, 56.
 experiments concerning, by Commissioners, 59.
 laws and practice in other countries, in relation to, 60, 61.
 examinations for, in United States army, 62.
 scepticism among railroad officials as to, 62.
 who can make examinations for, 63.
 conclusions of the Board in relation to, 65.
- Comparison of statistics of, 1873 to 1879, 184-187.
- Complaints, petitions, &c., reports on, 157.
- Connecticut River Railroad, cost of trains on, per mile run, 8.
 earnings per train mile, 10.
 average fares and freights on, 12, 13.
 muffler made by, approved, 27.
 improvements on, 108.
 abstract of annual return of, 162.
- Construction of railroads, during year, 1.
 cost of, 2, 184, 186.
 new, 101.
- Contents of tables compiled from railroad returns, 114-119.
- Cost of railroads, 2.
 comparative, in different States, 2.
 per mile owned, 2, 190.
 of street railways, 16.
 per mile owned, 138.
 of running trains, 8, 9.
 statistics of, 8.
- Crossings, highway, at grade, number of, in the State, 14.
 accidents at, 14, 22.
 views of the Board concerning, 15, 199-201
 decisions on applications for, 213, 216, 225.
 (*See Grade-crossings.*)
- Danvers Railroad, liabilities and assets of, 180.
- D Street, application for extension of, across the Old Colony Railroad, at grade,
 Report, 213, 216.
- Debt of railroads in Massachusetts, 2.
 comparative statement of, for five years, 3.
 per mile owned, 190.

- Debt of street railways, 15.
 - per mile of track, 138.
- Defective rolling-stock, accidents by reason of, 24.
 - way, accidents by reason of, 24.
- Deficit or surplus of railroad companies (*see returns of the several roads*).
 - street railway companies (*see returns of street railways*).
- Depot (*see Station*).
- Derailements, accidents by, 23, 24.
 - statistics of, 24, 92, 93.
- Dividends of railroads, 7, 185, 186.
 - statistics of, 185, 186.
 - amounts paid during seven years, 7 (*see abstract of re-*
turns).
 - of street railways, 15, 132.
- Dorchester & Milton Railroad, liabilities and assets of, 180.
- Double track, miles of, 1, 146-153.
- Earnings of railroads, 4, 5, 185, 194.
 - table of, since 1872-73, 5.
 - per mile of road, 5, 191.
 - per train mile, 9, 10, 191.
 - of street railways (*see Income*).
- Eastern Railroad, average rates of freight on, 12, 13.
 - cost per train mile on, 8.
 - earnings per train mile, 10.
 - terminal facilities of, in Boston, 17, 74.
 - permanent improvements on, 107.
 - abstract of annual return of, 154.
 - working of electric signals on, 210.
 - depot accommodations of, at Revere, 217.
- Electric signals, Hall's, description of, 33-36.
 - working of, on railroads, 210, 212.
- Union, description of, 37-39.
 - working of, 211.
- Rousseau's, description of, 39.
- Eminent domain, power of, how exercised, 44-48.
 - law in Massachusetts relative to, 45.
- Employés, number of, on railroads, 16, 184.
 - on street railways, 16.
 - injuries to, statistics of, 22, 84, 86, 89, 90.
 - accidents caused by carelessness of, 24.
 - examination of, for color-blindness, 53, 62-64 (*see Color-blindness*).
- Equipment of railroads, 13, 14.
 - additions to, &c., 13, 14.
 - cost of, 2.
 - per mile of road owned, 190.
 - of street railways, 16, 134.
 - cost of, 122.
 - per mile of track operated, 16, 138.
- Examination of railroads, 103-111.
- Expenses, statistics of railroad, 4, 194 (*see abstract of returns*).
 - per train mile, 191, 192.
 - per mile of road operated, 191.
 - of street railways, 16 (*see abstract of returns of street railways*).
 - per mile operated, &c., 142.
 - of office of Commission, 236.

- Export trade, diversity of opinion as to value of, 18, 19.
 - Boston should have her share of, 19.
 - advantages of, 20.
- Exports of agricultural products from Boston for ten years, 18, 83.
 - of grain from Boston for seven years, 18, 82.
 - from five ports, for seven years, 82.
- Expressmen, railroads not bound to furnish special facilities for, 222, 223.
- Fall River Railroad, abstract of annual return of, 162.
- Fall River, Warren & Providence Railroad, abstract of annual return of, 162.
- Fares, average, on railroads, 11, 12.
 - on street railways, 16.
- Fencing of railroads, action relative to, 26, 150.
 - on Boston & Albany Railroad, complaints relative to, 150.
- Fitchburg Railroad, cost of trains on, per mile run, 8.
 - earnings per train mile, 10.
 - average rates of fares and freight on, 12, 13.
 - terminal facilities of, in Boston, 17, 75.
 - application for workingmen's train on, 27.
 - accident on, at grade-crossing in Lincoln, 21, 198.
 - permanent improvement on, 109.
 - abstract of annual return of, 154.
 - working of electric signals on, 211.
 - relocation of station on, at Littleton, 230.
- Foreign railroads, applications for incorporation to construct, 26, 27.
- Framingham & Lowell Railroad, abstract of annual return of, 176.
- Freight, tons of, carried on railroads, 7, 11.
 - amount of, moved during the year, 185.
 - average rates of, 12.
 - in 1865 and 1879, 13.
 - average distance carried, 7.
 - carried one mile, per car owned, 7.
 - tons of, carried, 185.
 - per train mile, 193.
- Freight tears, number of, 14, 185.
 - cost of repairs of, per train mile, 9.
 - per car, 193.
 - miles run by, 185.
- Freight earnings, 5.
 - per train mile, 10, 191.
 - since 1872-73, 5.
 - expenses, per train mile, 191, 192.
- Freight traffic expenses, 190.
- Freight mileage, statistics of, 5.
- Freight trains, miles run by, 185.
- Freights, average, on railroads, 13.
 - receipts from, increased, 4.
 - statistics of, 185 (*see abstract of returns*).
- Fuel, cost of, per train mile, 9.
- General railroad law, power and duty of Board, as to new roads under, 41-48.
- General traffic expenses, 190.
- Gordon and Duggan switch, approved, 51.
- Grade-crossings of railroads and highways, number of, 14, 184.
 - views of the Board in relation to, 14,
 - 15 (*see D Street*).
 - accidents at, 21, 22.

- Grafton Centre Railroad, abstract of annual return of, 174.
- Grain, receipts of, at five ports in ten years, 81.
 exports from five ports in seven years, 82.
 receipts of, in Boston for nine years, 18, 77-80.
- Grand Junction grade-crossing, near Cottage Farm station, report on complaints concerning, 233.
- Hall's electric signals, description of, 33-36.
 working of, on Boston & Albany and Old Colony Railroads, 210, 212.
- Hanover Branch Railroad, abstract of annual return of, 166.
- Hanover, and other towns, petition of selectmen of, for earlier trains to Plymouth, 234.
- Hartford, Providence & Fishkill Railroad added to New York & New England, 1.
- Hartwell, Charles H., tried for manslaughter on account of Wollaston accident, 21.
- Highway crossings (*see Crossings*).
- Holyoke & Westfield Railroad, branch of, in Holyoke, 1, 103.
 abstract of annual return of, 176.
- Hopkinton Railroad, abstract of annual return of, 176.
- Horn Pond Railroad, liabilities and assets of, 181.
- Horses owned by street railroad companies, 16, 134.
 renewal of, 128.
 keeping good the stock of, per mile operated, 140.
- Housatonic Railroad, good condition of, 109.
 abstract of return of, 166.
- Income of railroads, 3, 6.
 per mile of road operated, 191.
 per train mile, 191.
 net, 6, 185.
 per mile of road operated, 191.
 percentage of, to permanent investment, 6.
 of street railways, 16, 126, 132.
 per mile operated, 138.
- Insurance, expenses of, 130 (*see abstract of returns*).
- Interest, accrued, statistics of, 7, 132, 185, 186.
- Investments, permanent, of railroads, statistics of, 184, 186 (*see abstract of returns*).
 cost of, per mile of road owned, 190.
- Kneeland Street, Boston, report on obstruction of, by Boston & Albany Railroad Company, 213, 216.
- Lancaster Railroad, liabilities and assets of, 181.
- Lee & Hudson Railroad, liabilities and assets of, 181.
- Lee & New Haven Railroad, liabilities and assets of, 182.
- Lincoln, fatal accident at crossing in, 21, 113.
- Littleton, relocation of passenger station in, 230.
- Location of railroads, records of, proceedings under the law concerning, 26.
- Locomotive boilers, explosion of, 25.
 necessity for examination and testing of, 25.
 cab electric signal, 207.
- Locomotives, cost of repairs of, per train mile, 9, 192.
 per locomotive, 193.
 number of, 13, 185.
 whistling of, 227.
- Lowell & Andover Railroad, liabilities and assets of, 177.

- Machine-shops and machinery (*see abstract of returns of respective railroads*).
- Mail and baggage cars, number of, 14, 185.
- Mails, receipts from, 4, 185.
- Maintenance and movement, total expenses of, per train mile, 192.
- Maintenance of way, &c., cost of, per train mile, 8, 9.
- Malicious obstruction, accidents occasioned by, 24.
- Martha's Vineyard Railroad, abstract of annual return of, 174.
- Massachusetts, building of railroads in, 1.
needs the full development of every industrial capacity, 19.
how the resources of, shall be developed, a question, 21.
- Massachusetts Central Railroad, annual return of, 181.
route of, in Belmont determined, 223.
- McGowan's muffler approved, 27.
- McLeod's automatic air signal, 152.
- Middlesex Central Railroad, extension of, 1, 102.
liabilities and assets of, 177.
- Mileage, freight and passenger, 5, 185.
of railroads, 1, 146-153.
of street railways, 134.
train, expenses, 8, 9.
- Miles run on railroads, statistics of, 5, 185.
average, travelled by passengers, 8.
freight carried, 7.
run on street railways, 16.
- Milk, no complaints under the law relating to the transportation of, 27.
- Milford & Woonsocket Railroad, liabilities and assets of, 177.
- Monadnock Railroad, liabilities and assets of, 177.
- Montreal, receipts of grain at, during ten years, 81.
exports of grain from, for seven years, 82.
- Movement, expenses of, 185 (*see respective roads*).
per train mile, 191.
- Mufflers for vacuum brakes, approval by Board, 27.
- Nashua, Acton & Boston Railroad, liabilities and assets of, 177.
- Nashua & Lowell Railroad, abstract of annual return of, 166.
- Net earnings of railroads, 6, 7, 185, 186.
per train mile, 191.
per mile operated, 191.
of street railways, 132.
per mile operated, &c., 142.
- Newburyport Railroad, liabilities and assets of, 181.
- Newburyport City Railroad, liabilities and assets of, 178.
- New Haven & Northampton Railroad, average rates of fare and freight on, 12, 13
permanent improvements on, 110.
abstract of annual return of, 166.
- New London Northern Railroad, abstract of annual return of, 166.
- New York, receipts of grain at, during ten years, 81.
exports of grain from, for seven years, 82.
- New York & New England Railroad, branch of, built, 1.
addition to length of, 1.
increase of debt of, 2.
cost of trains on, per mile run, 8.
earnings per train mile, 10.
terminal facilities of, 17, 75.
complaint against, for whistling of locomotives, 28, 227.
permanent improvements on, 110.
abstract of annual return of, 153.

- New York, New Haven & Hartford Railroad, cost of trains on, per mile run, 8.
 average fare and freight on, 12, 13.
 abstract of annual return of, 170.
- North Brookfield Railroad, assets and liabilities of, 178.
- Norwich & Worcester Railroad, abstract of annual return of, 170.
- Ocean Terminal Railroad, liabilities and assets of, 182.
- Oil and waste, cost of, per train mile, 9, 192.
- Old Colony Railroad, cost of trains on, per mile run, 8.
 earnings per train mile, 10.
 average fares and freights on, 12, 13.
 terminal facilities of, in Boston, 17, 76.
 accident on, near Wollaston Heights station, sequel to, 21.
 at Brockton, 201.
 improvements on, 107.
 working of electric signals on, 212.
 abstract of annual return of, 158.
 reports on proposed extension of D Street, across, at grade,
 213, 216.
 report on petition of Willard & Co., *vs.*, 222.
 report on petition for earlier trains on, to Plymouth, 234.
- Operating expenses, what is included in, 9.
- Operation of railroads, cost of, per mile, 8, 9.
 per train mile, 191, 192.
 items composing, 9.
 comparative average cost of, for seven years, 6.
- Orient Heights, report on remonstrance against location of a station at, on Boston,
 Revere Beach & Lynn Railroad, 220.
- Otterson's railroad signal, 209.
- Passenger cars, cost of repairs of, per train mile, 9, 192.
 number of, 14, 185.
 expense of repairs per car, 193.
- Passenger earnings, 4, 194.
 decrease of, since 1872-3, 5.
 per train mile, 10.
 expenses per train mile, 8.
 fares, statistics of, 12.
 mileage, statistics of, 5, 11.
 trains, cost of, per mile run, 8, 9.
 miles run by, 11.
- Passengers, number carried on railroads, 8, 11, 185 (*see returns of respective roads*).
 one mile, 8.
 per train mile, 193.
 on street railways, 16, 136.
 per round trip, 136.
 injuries to, by accidents during the past year, 21, 22, 84.
 average distance travelled by, 8.
 receipts from, 185 (*see returns of respective roads*).
- Permanent investments of railroads, 184.
 per mile of road owned, 190.
 of street railways, 122.
 way (*see Way*).
- Petitions, applications, &c., made to the Board, reports on, 197.
- Philadelphia, receipts of grain at, during ten years, 81.
 exports of grain from, for seven years, 82.
- Pittsfield & North Adams Railroad, assets and liabilities of, 178.

- Providence & Worcester Railroad, cost of trains on, per mile run, 8.
earnings of, per train mile, 10.
average rate of fare and freight on, 12, 13.
condition of, 109.
abstract of annual return of, 170.
- Railroad Commissioners, power and duty of, as to new railroads, 41-48.
required by law to fix route of proposed road if select-
men do not agree with directors, 42.
no discretion left to, 43.
must fix routes for two or twenty, in certain cases, 44.
questions to be decided by, 44.
- Railroad construction, 1, 101.
average cost of, in Massachusetts and other States, 2.
- Railroad corporations, number of, 2 (*see railroads*).
- Railroad returns, tabulated statement compiled from, 146-182.
- Railroads, question of exigency for, how decided, 44.
foreign, organization of companies for building, 26.
- Railroads of Massachusetts, construction of, during the year, 1, 101-103.
new, 1, 101.
statistics of, 120-194.
number of, 2.
length of, 1, 146-153.
miles operated, 184.
capital stock of, 2, 3, 184.
debt of, 2, 3, 184.
cost of, 2, 184.
expenses of, 4, 185.
earnings of, 3, 185.
comparative, for five years, 3.
for seven years, 186.
permanent investments of, 184.
additions, &c., to, 184.
dividends of, 7, 184.
cost of operating, 6, 8.
per train mile, 8, 9, 191.
net income of, 6, 185.
amount of business of, 7, 185.
equipment of, 13, 14, 184.
other property of, 184.
grade-crossings of, 14, 184.
employés on, 16, 184.
records of location, action under the law, relative to,
26.
fencing of, action relative to, 26.
examination of, 103.
general good condition of, 104.
double track, &c., on, 146-153 (*see abstract of returns of
the several roads*).
- Rails, cost of renewal of, per train mile, 9, 192.
steel, miles of, 13, 187.
iron, miles of, 187.
broken, accidents occasioned by, 92.
- Railways (*see street railways*).
- Rates (*see fares and freights*).
- Receipts of railroads, 3-5, 185, 186.
average per mile of single track, 5.

- Receipts of railroads, per train mile, 191.
 - of street railways, 126 (*see abstract of returns of the several companies*).
- Records of location, proceedings under the law concerning, 26.
- Rents, statistics of, 185.
- Repairs of railroads, cost of, per train mile, 9, 192.
 - of cars, average cost of, per car, 193.
 - on street railways, 128.
 - per mile operated, 16, 140.
 - cost of, per locomotive, passenger and freight cars, 192.
- Reports on matters specially referred to the Board, 49-67.
 - on petitions, applications, &c, made to the Board, 197.
 - for approval of highway grade-crossings, 213, 216, 225.
- Returns, railroad, in tabular form, 146-182.
 - comparative tables compiled from, 190-194.
- Returns, street railway, tabular abstract of, 120-137.
 - comparative tables of, 138-143.
- Revere, depot accommodations and fares at, 217.
- Rhode Island & Massachusetts Railroad, abstract of annual return of, 178.
- Ridge Hill Branch of New York & New England Railroad, 101.
- Road (*see Way*).
- Road-bed, cost of repairs of, per train mile, 9, 192.
- Rolling-stock, amount of, returned for seven years, 14, 187.
 - statistics relating to, 13, 185, 192, 193.
- Round trips on street railways, number of, 16, 136.
- Rousseau's interlocking device, 33.
 - safety signals, 39.
- Runaway car, accident by, 24.
- Safety-switches, special report on, 51-53.
- Salaries and general office expenses of street railways, 128.
- Salaries, wages, &c., per train mile, 9 (*see abstract of returns*).
 - of street railways, 128.
- Salem & Lowell Railroad, consolidated with Boston & Lowell, 2.
- Season-ticket passengers, number of, 185 (*see returns of respective roads*).
- Service, train, cost of, 8, 9.
- Sidings, statistics of, 1, 146-153.
- Signals, resolve in relation to, 30.
 - report on, 30-41.
 - not yet perfectly reliable, 40.
 - but useful as auxiliaries, 41.
 - reports on working of, on several railroads, 210-213.
 - interlocking of switches and, 31-33.
 - Hall's electric, 33-36.
 - Union electric, 37-39.
 - Rousseau's safety, 39.
 - Bean's atmospheric, 40, 209.
 - Tisdale's electric, 208.
 - McLeod's automatic air, 208.
 - Otterson's, 209.
 - locomotive cab electric, 208.
- Sonora Railway Company, organization of, 27.
- South Abington (*see Abington*).
- Spencer Railroad, completion of, 1, 102.
 - assets and liabilities of, 182.
- Springfield, Athol & Northeastern Railroad, sold and name changed, 2.
- Springfield and Northeastern Railroad, 2.
 - condition of, 108.
 - abstract of return of, 170.

- Springfield & New London Railroad, assets and liabilities of, 178.
- Springfield Street Railway, dividend of, 15.
- Standard gauge car on broad gauge track, accident by, 24.
- Stations, number of, 184.
reports on relocation of, 217, 220, 230.
- Statistical tables, 114-194.
- Steel rails, miles of, 13.
expenses for new (*see returns of railroads respectively*).
- Stock of railroads, amount of, 2, 184.
per mile of road owned, 190.
how owned, 184, 186.
dividends on, 7, 185.
- of street railways, amount of, 15.
per mile owned, 138.
dividends on, 16, 132.
- Stockbridge & Pittsfield Railroad, assets and liabilities of, 179.
- Stockholders, statistics of, 184, 186.
- Stony Brook Railroad, assets and liabilities of, 179.
- Street railway returns, 120-143.
- Street railways, statistics of, 15, 16, 120-143.
number of, 15.
capital stock of, 15, 120.
per mile of road owned, 138.
debt of, 15, 120.
debt per mile of road owned, 138.
land and buildings of, 122.
cash assets, 120.
length of, 15, 134.
number of stockholders, 120.
cost of, 16, 122.
per mile owned, 138.
per mile operated, 16, 138-141.
total property assets, 122.
additions and reductions of property during year, 124.
income of, 126.
per mile operated, 140, 142.
per mile run, 140, 142.
per passenger, 140, 142.
per round trip, 140, 142.
expense of operating, 16, 128-131.
per mile operated, &c., 142.
cost of round trip on, 16.
interest accrued, 132.
net earnings per mile operated, &c., 142.
dividends of, 15, 132.
equipment of, 16.
car mileage on, 16, 136.
number of passengers on, 16, 136.
greater than on steam roads, 16.
number of passengers on, per round trip, 136.
of trips on, 16, 136.
number of employes on, 16, 136.
accidents on, 136 (*see abstract of returns of street railways*).
- Suicides on railroads, 22, 86.
- Summary of returns of 1878 and 1879, 184, 185.
for seven years, 186, 187.
- Surplus or deficit of railroad companies (*see abstract of returns*).

- Surplus or deficit of street railway companies, statistics of, 132.
- Swift's improved Muffler, approved, 27.
- Switches, safety, special report on, 51-53.
 kinds of, approved, 51.
 no legislation recommended, 53.
 block system of interlocking signals and, 31-33.
- Tables, statistical, from railroad returns, 145-194.
 from street railway returns, 120-143.
- Tabulated statement compiled from railroad returns, 146-182.
- Tabulated comparative results, compiled from railroad returns, 190.
- Tehuantepec Inter-Ocean Railroad Company, organization of, 27.
- Terminal facilities of Railroads in Boston, 17, 18, 71-76.
 of Boston & Albany Railroad, 17, 71.
 of Fitchburg Railroad, 17, 75.
 of Boston & Lowell Railroad, 17, 72.
 of Boston & Maine Railroad, 17, 73.
 of Eastern Railroad, 17, 74.
 of New York & New England Railroad, 17, 75.
 of Boston & Providence Railroad, 17, 73.
 of Old Colony Railroad, 17, 76.
- Through business for export, increase of, 18.
- Through rates, low, have not resulted in exorbitant local rates, 19.
- Tisdale's improvement in mechanical and electric signals, 152.
- Track of street railways, average cost of, per mile, 16, 138.
 cost of repairs of, per mile operated, 138.
- Traffic expenses, statistics of, 185, 186.
 per train mile, 8, 9.
- Train accidents, classification of, 23-25, 88, 96.
- Train mile, expenses per, 8, 9.
 earnings per, 9.
 earnings and expenses per, statistics of, 191, 192.
 standard, average cost of, 9.
- Train mileage, 11, 185.
 statistics of, 185, 187.
- Train movement, cost of, 8, 9.
- Trains, cost of running, 8.
 blown from track, 24.
- Transportation earnings, statistics of, 185, 191.
 expenses, statistics of, 185, 191.
- Travel (*see Passenger*).
- Trespassers, accidents to, 22, 86, 90.
- Troy & Greenfield Railroad, income and expenses of, 180.
- Tyler switch, modification of approved, 51.
- Unexplained causes, accidents occasioned by, 24.
- Union electric signals, 37-39.
 working of, on Fitchburg Railroad, 211.
- Union Freight Railroad, abstract of annual return of, 180.
- United States, statistics of railroad accidents in, 23-25, 92-100.
- Vermont & Massachusetts Railroad, abstract of annual return of, 179.
- Vision, defects of, importance of examination of employes for, 64.
- Wages (*see Salaries*).
- Ware River Railroad, assets and liabilities of, 179.

- Waste, cost of, per train mile, 9, 192.
- Water and water-stations, expense for (*see returns of railroads respectively*).
- Way, permanent, cost of, 2, 184.
 per mile of road, 2, 190.
 statistics of, 184.
 length of, 1, 184.
 cost of maintaining, per train mile, 9, 192.
 of street railways, cost of, 16.
 repairs on, cost per mile operated, 138.
- West Amesbury Railroad, assets and liabilities of, 179.
- West Stockbridge Railroad, assets and liabilities of, 180.
- Wharton switch, patentee's proposal to substitute for Tyler in the statute, 51.
 merits of, 52.
- Whistling of locomotives, complaints of annoyance caused by, 28, 227.
 ruling of the courts in relation to, 28.
 hardship to railroads, by antagonistic position of courts
 and Railroad Commissioners, 29.
 law relating to, in Indiana, 29.
- White switch, approval of, by the Board, 51.
- Willard & Co., petition of, for rights as expressmen on the Old Colony Railroad,
 222.
- Wind, derailment of trains by, 24.
- Wollaston, disaster, conductor of train arrested for, and tried for manslaughter,
 21.
- Woonsocket division of New York & New England Railroad, branch constructed
 from, 101.
- Worcester & Nashua Railroad, cost of trains on, per mile run, 8.
 earnings of, per train mile, 10.
 average rates of fare and freight on, 12, 13.
 improvements on, 108.
 abstract of annual return of, 170.
- Worcester & Shrewsbury Railroad, abstract of annual return of, 174.
- Workingman's trains, application for, on Fitchburg Railroad, 27.

Part I.

COMMISSIONERS' REPORT.

Commonwealth of Massachusetts.

THE Railroad Commissioners respectfully submit their Eleventh Annual Report.

RAILROAD CONSTRUCTION.

During the year ending Sept. 30, 1879, only eleven miles of additional railroad were completed in the state: two miles and a fraction by the Spencer Railroad Company, three miles by the Middlesex Central, four by the Holyoke & Westfield, and one and six-tenths by the New York & New England. A large increase in the miles of railroad owned by the Massachusetts corporations, results from the acquisition of the Hartford, Providence & Fishkill Railroad, by the New York & New England Railroad Company, adding 123 miles to the length of its track.

MILEAGE OF RAILROADS.

The total length of railroads belonging to the corporations making returns to this Board was 2,625.898 miles of main line and branches, of which 637.496 miles were supplied with double track. Last year the total length was 2,491.665 miles, with 639.646 miles of double track. The total length of sidings was 886.592 miles, against 798.965 of last year. The total length of track, considering double track and sidings as so much additional single track, is 4,149.986 miles, while in 1878 there were reported 3,930.276 miles. Of this 4,149.986, there are in this state 1,861.823 miles of main track and branches, of which 450.718 have double track. The sidings within the limits of Massachusetts amount to 650.383 miles. Considering double track and sidings as additional single track, there are in this state 2,962.924 miles of such track.

COST OF ROADS.

The average cost of standard-gauge roads is returned at \$56,294.00 per mile. The cost of equipment averages \$6,361.30 per mile; making the average cost of a standard-gauge road, with equipment, \$62,655.30. But this cost varies upon the different roads from \$110,219.50 to \$24,353.25. The cost of narrow-gauge roads averages \$24,095.80 per mile, and \$5,217.08 per mile additional for equipment. The average cost of a standard-gauge road, with equipment, in some of the other states, as shown by the figures in Poor's Manual for 1879, is as follows:—

Connecticut	\$51,012 00
New York	76,192 00
Pennsylvania	68,650 00
Ohio	64,901 00
Michigan	40,763 00
Illinois	44,153 00
Iowa	33,242 00

NUMBER OF CORPORATIONS.

Returns were received from sixty-three corporations, being a decrease of one: the Lowell & Lawrence and the Salem & Lowell having been consolidated with the Boston and Lowell; and the Ocean Terminal having been added to the number of companies reporting. The Springfield, Athol & North-eastern having been sold, its name has been changed to the Springfield & North-eastern Railroad Company.

CAPITAL STOCK AND DEBT.

The corporations included in the returns have in the aggregate stock amounting to \$118,390,938.88, being a decrease of \$654,291.04. This decrease was caused by the consolidation of the Salem & Lowell, and the Lowell & Lawrence, with the Boston & Lowell Railroad Company, and by the re-organization of the Springfield, Athol & North-eastern Company. The net debt, or gross debt, less cash assets, amounts to \$55,755,418.06, being an increase of \$3,109,361.82. This increase results chiefly from the action of the New York & New England Railroad Company, expending \$3,800,000.00 in acquiring the property of the Hartford, Providence & Fishkill road, and paying off certain liens on the road. On the other

hand, the debt of the Springfield, Athol & North-eastern Railroad Company, amounting last year to \$871,361.34, has ceased to exist by reason of foreclosure. The returns for the last five years are as follows:—

YEARS.	Stock.	Net Debt
1875	\$118,262,285 90	\$53,355,052 92
1876	118,179,615 03	51,620,374 27
1877	118,170,201 03	52,914,825 15
1878	119,045,229 92	52,646,056 24
1879	118,390,938 88	55,755,418 06

EARNINGS.

The total gross income for the year of all these corporations amounts to \$30,312,964.54, being an increase of \$1,259,955.78. The greater part of this increase is only apparent. The earnings of the Hartford, Providence & Fishkill road, amounting the previous year to more than \$866,000, as shown by the Connecticut Report, appear now included in the income of a Massachusetts corporation; and the \$237,000, which are reported as earnings by the Boston, Clinton & Fitchburg, are the rent paid to that corporation by the Old Colony. Making these deductions, the increase is small; but it is an increase, and marks the turn of the tide in railroad as in all other business affairs. If the returns were for the calendar year, instead of the railroad year, they would be far more favorable, and would show that our state and her railroads are sharing the general prosperity of the country.

The following table shows the comparative results for five years:—

YEARS.	Gross Income.	Decrease from Previous Year.	Per Cent of Decrease.
1875	\$32,589,485 68	—	—
1876	31,007,448 32	\$1,582,037 36	4.8
1877	30,008,513 74	998,934 58	3.2
1878	29,053,008 76	955,904 98	3.2
1879	30,312,964 54	1,259,955 78*	4.3*

* Increase.

The total expenses—including rents paid—of the corporations making returns amount to \$20,158,950.68, being an increase during the year of \$338,823.90. The net income was \$10,154,013.86, being an increase of \$921,131.88. The passenger earnings (including express, extra baggage and mails) for the year were \$14,339,491.33, being an increase of \$118,979.58. The earnings for carrying freight amounted to \$14,813,337.69, being an increase of \$1,030,613.03, and an aggregate increase of freight and passenger earnings of \$1,149,592.61. The percentage of increase of passenger earnings was .84 per cent; of freight earnings, 7.5 per cent.

We republish part of the table given last year, showing the total of transportation earnings for six years, with the returns of last year added, as showing the annual variation during that term of earnings from what is strictly railroad business:—

YEARS.	Total Transportation.	Decrease from Previous Year.	Percentage of Decrease
1872-3	\$33,856,977 99	—	—
1873-4	33,165,594 77	\$691,383 22	2 04
1874-5	31,494,865 19	1,670,729 58	5 04
1875-6	29,855,800 39	1,639,064 80	5 24
1876-7	28,931,987 62	923,818 77	3.10
1877-8	28,003,236 41	928,751 21	3 21
1878-9	29,152,829 02	1,149,592 61*	4.10*

The local passenger business produced \$9,363,232.38, showing an increase of \$199,580.12; the through passenger business amounted to \$3,671,815.06, being a decrease of \$114,503.44. The express, mail and other earnings, included in total passenger business, amounted to \$1,304,443.89, an increase of \$33,902.90. The local freight carried amounted to \$7,456,393.37, an increase of \$680,632.58. The through freight was \$7,213,082.13, showing an increase of \$273,751.62. The amount returned as earned in the freight department from other sources than local and through freight was \$143,862.19, being an increase of \$76,228.83. This last item refers chiefly, and perhaps wholly, to earnings by hauling gravel and other work of filling land.

We reproduce the tables showing the passenger and freight earnings for the previous six years, with the last year added, and also the table showing the comparative amount of passenger and freight mileage:—

* Increase.

YEARS.	Passenger Earnings.	Per Cent of Transportation Earnings.	Freight Earnings.	Per Cent of Transportation Earnings.
1872-3 . . .	\$15,486,934 92	46	\$17,248,110 15	51
1873-4 . . .	15,872,687 15	48	16,053,447 08	48
1874-5 . . .	15,566,780 83	49	14,610,208 15	46
1875-6 . . .	14,531,719 36	48	14,086,146 69	47
1876-7 . . .	13,489,208 95	46	14,234,677 72	49
1877-8 . . .	12,949,970 76	46	13,782,724 66	49
1878-9 . . .	13,035,047 44	45	14,813,337 69	50

Passenger and Freight Mileage.

YEARS.	Total Passenger Mileage.	Total Freight Mileage.
1872-3	658,207,465	615,769,300
1873-4	681,875,870	597,085,805
1874-5	655,615,588	579,868,983
1875-6	639,592,115	628,577,176
1876-7	605,544,855	684,810,604
1877-8	593,060,781	715,480,187
1878-9	616,871,131	806,064,933

The increase of passenger mileage — passengers carried one mile — for the year amounts to 23,810,350, and the increase of freight mileage — tons of freight carried one mile — to 90,584,746. The number of passengers carried was 39,217,634, an increase of 1,899,207. The tons of freight carried were 14,401,877, being an increase of 2,215,332 over the preceding year.

The great increase of passenger mileage, as compared with the slight increase of passenger earnings, is accounted for by the vast number of travellers who have taken advantage of the low fare on the competing water routes to New York. This has resulted in an actual decrease of passenger receipts, while the number of passengers carried “through” the various routes amounted to 5,201,615, — without doubt a large increase over last year, when no return of this item was given.

EARNINGS PER MILE OF ROAD.

The average sum earned on each mile of main track and branch operated was \$10,021.50 ; or, computing double track as additional single track, the average per mile was \$8,221.05. The

average amount earned per mile on the eight roads of standard-gauge terminating in Boston, was \$10,387.15.

COST OF OPERATING.

The following table shows the cost of operating the roads during the last seven years, giving the cost for each mile of road operated, and the percentage of operating expenses as compared with gross receipts:—

YEARS.	Cost of Operating per Mile of Road.	Percentage of Operating Ex- penses to Gross Receipts.
1872-3	\$10,782 13	73
1873-4	9,917 90	69
1874-5	9,329 38	70
1875-6	8,836 40	69
1876-7	8,494 18	68
1877-8	7,319 51	69
1878-9	6,576 75	65

GROSS AND NET INCOME.

The total gross and net income of all the corporations is given for seven years in the table following, which shows also the percentage of gross and net income compared with the permanent investment of each railroad corporation:—

YEARS.	Total Gross Income.	Percentage to Permanent Investment.	Net Income.*	Percentage to Permanent Investment.
1872-3	\$34,930,527 42	22	\$9,517,838 68	6
1873-4	34,632,483 54	20	10,703,301 70	6.2
1874-5	32,589,485 68	18	9,646,651 16	5.4
1875-6	31,007,448 32	18.3	9,546,820 80	5.6
1876-7	30,008,513 74	17.7	9,344,088 38	5.5
1877-8	29,053,008 76	17	9,232,811 98	5.4
1878-9	30,312,964 54	17.5	10,154,013 86	5.8

The net income of 1878-79 was earned by the several corporations on the cost of their permanent investments in the following proportions:—

* Gross Income, less operating expenses and rents.

11 companies with \$1,784,000 permanent investment had no net income.

18	"	"	35,044,000	"	"	"	3½ per cent or less.
13	"	"	32,944,000	"	"	"	3½ to 5½ per cent.
12	"	"	33,237,000	"	"	"	5½ to 7½ "
6	"	"	50,214,000	"	"	"	7½ to 9½ "
2	"	"	16,907,000	"	"	"	9½ to 10 "

62* companies \$173,130,000

DIVIDENDS.

The total amount of dividends paid amounted to \$5,264,431.78, being a decrease of \$325,495.62. This decrease is accounted for by the passing of its dividends by the Old Colony Railroad Company on account of the destructive and costly accident at Wollaston. Of the sixty-three corporations, thirty-one paid dividends varying from 1 to 10 per cent. A table is given, showing the amount paid in dividends by all corporations making returns to this Board for seven years, with the percentage thereof on the total capital stock returned, and also with the amount of interest paid.

YEARS.	Amount paid in Dividends.	Percentage to Total Capital Stock.	Interest paid.
1872-3	\$7,230,456 02	6 34	\$1,846,783 16
1873-4	6,988,170 85	6.11	2,791,572 28
1874-5	6,733,670 93	5.97	3,152,862 45
1875-6	8,858,509 49	4.95	3,704,698 38
1876-7	5,429,183 31	4.60	3,437,026 53
1877-8	5,589,927 40	4.68	3,126,925 34
1878-9	5,264,431 78	4.30	3,172,990 59

AMOUNT OF BUSINESS.

The total freight and passenger movement during each year since the great railroad year 1872-73, is shown by the tables that follow:—

YEARS.	Tons Freight carried.	Tons Freight carried One Mile.	Average Distance each Ton was carried.
1872-3	12,431,188	615,769,300	49.50
1873-4	12,014,812	597,085,805	49.75
1874-5	11,072,312	579,868,983	52.25
1875-6	11,327,502	628,577,176	55.48
1876-7	11,910,663	684,810,604	57.40
1877-8	12,186,545	715,480,187	58.65
1878-9	14,401,877	806,064,933	56 00

* Troy & Greenfield not included.

YEARS.	No. of Passengers carried.	No. of Passengers carried One Mile.	Average Distance travelled.
1872-3	42,398,001	658,207,465	15.30
1873-4	42,480,494	681,875,870	16.00
1874-5	42,139,671	655,615,588	15.30
1875-6	41,133,229	639,592,115	15.55
1876-7	38,450,823	605,544,855	16.00
1877-8	37,318,427	593,060,781	15.85
1878-9	39,217,634	616,871,131	15.73

COST OF RUNNING TRAINS.

The average cost of running trains one mile during this year on all the roads reported, has been \$0.845. A table is here given, showing the cost of running each train mile for the past four years:—

Cost per Total Train Mile.

1875-6	\$1.041	1877-8	\$0.884
1876-7	.980	1878-9	.845

Another table shows the cost per total train mile to each of the leading corporations of this state:—

	COST PER TOTAL TRAIN MILE.			
	1875-6.	1876-7.	1877-8.	1878-9.
Boston & Albany	\$0.954	\$0.914	\$0.878	\$0.761
Boston & Lowell	1.002	.840	.807	.771
Boston & Maine	.979	.932	.884	.841
Boston & Providence	1.304	1.213	1.046	.964
Eastern	.976	1.036	.761	.721
Fitchburg	1.309	1.009	.817	.821
New York & New England	1.249	1.054	.924	.835
Old Colony	1.073	1.062	1.000	1.065
Connecticut River	1.161	1.125	1.021	.970
New York, New Haven & Hartford	1.242	1.065	1.022	.978
Providence & Worcester	1.271	1.178	1.049	.887
Worcester & Nashua	1.220	.923	.805	.757

The marked difference between 1876-77 and 1877-78, is caused both by a decrease in expenses and a different manner of computing.

The cost of train service per total train mile for the last six years is divided as follows:—

	1874.	1875.	1876.	1877.	1878.	1879.
Repairs of road-bed . .	\$0.157	\$0.153	\$0.110	\$0.120	\$0.105	\$0.100
bridges . .	.021	.026	.018	.018	.019	.015
buildings . .	.037	.039	.026	.025	.029	.026
Renewal of rails . .	.080	.056	.038	.046	.034	.025
Repairs of locomotives . .	.087	.070	.063	.058	.051	.045
passenger cars, . .	.114	.104	.085	.062	.056	.057
freight cars . .	.101	.111	.088	.094	.097	.091
Salaries	.319	.337	.311	.301	.291	.281
Oil and waste	.016	.015	.014	.013	.010	.009
Fuel	.174	.147	.121	.126	.104	.096
Total	\$1.116	\$1.058	\$0.874	\$0.863	\$0.796	\$0.745

The following table shows the cost of transporting a passenger and a ton of freight one mile on the several roads, the total expenses being apportioned to passengers and freight, in accordance with the miles run by passenger and freight trains:—

	Passenger.	Ton of Freight.
Boston & Albany	1.12 cts.	0.80 cts.
Boston & Lowell	2.13 “	1 15 “
Boston & Maine	1.45 “	1.24 “
Boston & Providence	1.47 “	1.21 “
Eastern	1.52 “	1 80 “
Fitchburg	1.82 “	.88 “
New York & New England	2.60 “	1.42 “
Old Colony	1.95 “	1.70 “
Cheshire	2.28 “	1.15 “
Connecticut River	2.68 “	1.33 “
Providence & Worcester	2.05 “	1.38 “
Worcester & Nashua	2.21 “	1 31 “

EARNINGS PER TRAIN MILE.

The earnings for each revenue train mile, for each passenger train mile and for each freight train mile on twelve of the principal roads in the state during the past four years, are given in the accompanying table (p. 10).

	EARNINGS PER TOTAL TRAIN MILE. *			EARNINGS PER PASSENGER TRAIN MILE.			EARNINGS PER FREIGHT TRAIN MILE.					
	1875-6.	1876-7.	1877-8.	1878-9.	1875-6.	1876-7.	1877-8.	1878-9.	1875-6.	1876-7.	1877-8.	1878-9.
Boston & Albany . . .	\$1.419	\$1.283	\$1.262	\$1.345	\$2.071	\$1.917	\$1.831	\$1.791	\$1.117	\$1.062	\$1.041	\$1.176
Boston & Lowell . . .	1.268	1.195	1.135	1.560	1.022	1.001	.939	.999	1.458	1.419	1.386	3.120*
Boston & Maine . . .	1.441	1.345	1.601	1.577	1.347	1.350	1.447	1.404	1.513	1.307	1.975	1.984
Boston & Providence . .	1.824	1.684	1.570	1.513	1.634	1.559	1.451	1.353	2.091	1.941	1.851	1.916
Eastern	1.215	1.492	1.539	1.600	1.381	1.359	1.437	1.410	1.570	1.736	1.744	1.992
Fitchburg	1.583	1.403	1.201	1.243	1.277	1.088	.977	1.055	1.655	1.535	1.408	1.391
New York & New England,	1.468	1.326	1.238	1.248	1.094	.975	.952	.881	2.039	2.066	1.764	1.904
Old Colony	1.685	1.588	1.716	1.560	1.516	1.512	1.539	1.376	1.822	1.743	2.208	1.923
Connecticut River . . .	1.823	1.708	1.549	1.640	1.551	1.287	1.155	1.141	2.163	2.579	2.387	2.822
New York, New Haven & Hartford	2.082	1.887	2.050	1.982	2.150	1.860	1.875	1.815	2.040	1.940	2.500	2.338
Providence & Worcester . .	1.682	1.616	1.886	2.032	1.502	1.523	1.213	1.480	1.810	1.600	2.239	2.609
Worcester & Nashua . .	1.659	1.350	1.381	1.265	1.216	.996	1.034	1.051	1.920	1.818	1.799	1.517

* In former years the switching mileage was included in freight train mileage.

It appears that during the year the passenger train miles increased in number 490,736, while the freight train miles decreased 291,259. Other train mileage amounted to 2,988,288, being an increase of 118,104. The apparent decrease in freight train mileage, and corresponding increase in other train mileage, was for the most part caused by including this year in the other train mileage the switching mileage, which was heretofore included in freight train mileage.

The total train mileage was 22,755,910, showing an increase of 1,317,581.

Train Mileage.

YEARS.	MILES RUN BY		
	Passenger Trains.	Freight Trains.	All Trains.
1872-3	9,212,257	9,684,612	20,061,617
1873-4	9,887,001	9,298,817	20,247,549
1874-5	10,149,520	9,206,054	20,265,737
1875-6	10,439,856	9,464,471	20,605,854
1876-7	10,479,546	9,967,200	20,811,041
1877-8	10,301,893	9,266,252	21,438,329
1878-9	10,792,629	8,974,993	22,755,910

The total number of passengers carried was 39,217,634, as against 37,318,427 last year, being an increase of 1,899,207. The total passenger mileage amounted to 616,871,131, against 593,060,781 of last year: an increase of 23,810,351. The tons of freight carried during the year were 14,401,877 against 12,186,545, showing an increase of 2,215,332. The freight mileage was 806,064,933, which, compared with 715,480,187 for last year, shows an increase of 90,584,746.

As compared with the returns of 1872-3, there is a decrease in the number of passengers carried amounting to 3,180,367, or 7.5 per cent, and in passenger mileage of 41,336,334, or 6.3 per cent. But in the number of tons of freight carried the increase is 1,970,689, or 14.7 per cent; and in the freight train mileage the increase is 190,295,633, being 30.9 per cent.

FARES AND FREIGHTS.

The average fare per mile received from each passenger carried during the last year, is as follows:—

1872-3.	1873-4.	1874-5.	1875-6.	1876-7.	1877-8.	1878-9.
\$0.0232	\$0.0230	\$0.0242	\$0.0240	\$0.0240	\$0.0240	\$0.0212

Such a table, however, is of very slight value, as the rate of fare varies, and must vary greatly according to the nature of travel, the amount on one road for a certain class of travel being 1,500 per cent more than another class of travel on another road. In the average rate given above, through and local travel, trip-tickets, package, commutation and season tickets are all included.

We repeat what has been said by us before, that statements as to average rate of freight are also of slight value, and that they are even calculated to deceive, unless examined with great care. We reproduce tables showing the average rates of fares and freights for five years on the leading roads, and another showing the change in average rates of freight on five roads since the year 1865, that being about the time when the movement for cheap transportation began.

The extent of reduction would be more apparent, if the returns to this Board enabled us to state the rates received on business, which is really through business. At present all business is classed as "through," whether it traverses the Commonwealth, or only passes over one mile of its territory, provided it passes from one road to another.

	FARES.				
	1875.	1876.	1877.	1878.	1879.
	Cents.	Cents.	Cents.	Cents.	Cents.
Boston & Albany	2.40	2.37	2.31	2.24	2.14
Boston & Maine	2.10	1 99	2 03	1.96	1.93
Boston & Providence	2 32	2.10	2 20	1.90	1.80
Old Colony	2.24	2.20	2.10	2.10	2.00
Boston & Lowell	2 11	2 15	2.09	2.06	2.04
Fitchburg	2.18	2.10	2 00	1 99	1.90
Eastern	2.21	2.04	2.06	2.29	2 05
Connecticut River	2.75	2.78	2.69	2 75	2 61
New York, N. Haven & Hartford .	2.33	2.39	2.31	2.29	2 26
Providence & Worcester	2.52	2.52	2 31	2.36	2 37
Worcester & Nashua	3.46	3.18	2.88	2.94	2 90
New Haven & Northampton . . .	2 95	2.97	2.97	2.34	2 64

	FREIGHTS.				
	1875.	1876.	1877.	1878.	1879.
	Cents.	Cents.	Cents.	Cents.	Cents.
Boston & Albany	1.53	1 28	1.21	1.13	1.11
Boston & Maine	3.20	2.77	2.31	2.25	2.49
Boston & Providence	3.36	3.13	2.70	2.50	2.27
Old Colony	4.04	3.98	3.60	3.70	2.69
Boston & Lowell	4.04	3.62	3.69	3.41	3.35
Fitchburg	4.13	2 50	1.71	1.60	1.30
Eastern	2.78	2 68	2.48	2.33	2.19
Connecticut River	3 97	3.97	4.00	4 00	3 50
New York, N. Haven & Hartford,	4 10	3.54	3 50	3.07	2.36
Providence & Worcester	3.46	3.12	2.99	2.90	2 97
Worcester & Nashua	2.94	3.13	2.74	2.72	2 30
New Haven & Northampton	4.14	3.43	3.42	3.31	2.93

Average Rates of Freight 1865 and 1879.

	Rate 1865. Cents.	Rate 1879. Cents.	Per Cent 1879 to 1865.
Boston & Albany	3.90	1.11	29
Boston & Maine	4.58	2.49	54
Boston & Providence	4 38	2.27	52
Eastern	4.40	2.19	49
Connecticut River	6.20	3.50	56

STEEL RAILS.

During the year, 179.040 miles of steel rails were laid, making the whole amount now laid 1,696.080 miles, being fifty per cent of the total main line, including double track. The amount of steel rails placed on the roads during the last six years is shown in the following table:—

	1873-4.	1874-5.	1875-6.	1876-7.	1877-8.	1878-9.
Steel rail (miles)	253	157	104	200	172	179

ROLLING STOCK.

The increase in the number of locomotives during the year has been 53; and the increase of passenger cars has been 55. Mail and baggage cars have been increased by six; while freight

cars have been increased 1,040. The following table shows the amount of rolling stock returned for the last seven years :—

	1872-3.	1873-4.	1874-5.	1875-6.	1876-7.	1877-8.	1878-9.
Locomotives .	908	969	984	994	1,013	1,017	1,070
Passenger cars .	1,243	1,294	1,361	1,442	1,446	1,397	1,451
Mail and baggage,	305	353	349	335	354	395	401
Freight cars .	16,143	16,148	16,720	16,836	17,292	18,469	19,509

GRADE CROSSINGS.

The number of highway crossings at grade, as reported this year, is 2,151. The number reported last year was 2,043, showing an apparent increase of 108. No such increase has taken place; and the change of figures is chiefly due to greater care in reporting the number of crossings which have hitherto been considered as private. The number of crossings protected by gates or by flagmen, or both, is 491; being an increase of 33.

The Board has more than once had occasion to express regret that so many grade crossings should continue to endanger the limbs and lives of travellers; and they reiterate the regret that local sentiment should so often demand that the number of these dangers should be increased. During the past year, as elsewhere reported, thirty casualties took place at grade crossings, resulting fatally in thirteen cases. During the past ten years the number of persons injured was 244; and the number fatally injured was 125.

All men conversant with railroads deprecate the increase, and even the existence, of these nuisances; and, in general, the community agrees with them. But in each special application a different feeling is shown. Then, the expense of an overhead crossing by the highway, with the unsightliness of the structure and the wear of "horse-flesh," or the inconvenience of a depressed way with its injury to adjoining property, is urged against all considerations of safety. Each citizen is confident that no accident will happen to him or to his family, while many residents in the locality interested, fear some immediate injury from any other mode of crossing than at grade. The opposition of railroad companies to these crossings is often attributed entirely to their fear of the expense of guarding

them, although there seems to be no good reason for supposing that railroad officials are lacking in an average share of humanity.

There is no subject that so often brings this Board into unpleasant contact with individuals and municipalities as this of grade crossings. But it is unnecessary to say, that, so long as jurisdiction over this matter is vested in the Board, and while their views as to the impolicy and hazard of increasing the number of grade crossings are unchanged, they will feel bound to act in accordance with those views. Some grade crossings are inevitable, but they must always be regarded as serious evils, and no device has yet been discovered that renders them free from peril. The number of accidents and of deaths at protected crossings illustrates this, and shows that every crossing, however guarded, is a constant source of danger. Signals, electric and others, may do something to diminish the risk : but no signal is now in use which any railroad manager would think of trusting as the only safeguard of a crossing. And it is hard to believe that any will ever be devised that will be relied upon alone, or that will entirely remove the danger arising where a highway and a railroad cross each other at grade.

STREET RAILWAYS.

Returns were received from 29 street railway companies, — the same number with last year. The aggregate capital stock increased \$242,000.00 during the year, amounting on Sept. 30, 1879, to \$5,707,750.00 ; while their gross debt has become \$3,194,318.76, being an increase of \$41,443.77. The aggregate of stock and gross debt is now \$8,902,068.76.

One corporation made a dividend of 58 per cent ; two of 10 per cent ; one of 9 ; two of 8 ; one of 7 ; six paid 6 per cent ; one paid 5 ; and 2 paid 3 per cent ; while thirteen declared no dividend. The Springfield Street Railway dividend of 58 per cent represents the accumulation of years, and is understood to be partially the product of an indemnity fund, which became available for distribution. The average rate of dividend, including this exceptional one, amounted to 6.85 per cent ; and the net earnings to 7 per cent on the aggregate of stock and debt.

The whole length of track, including branches and sidings, amounts to 222.556 miles, being an increase of 10.304 miles, and

an average of 7.68 miles for each road. The average cost per mile was \$21,930.60 for permanent way, \$8,492.45 for equipment, and \$8,947.85 for land and buildings, making a total cost of \$39,370.90 for each mile of road operated. The number of round trips was 1,714,524, being an increase of 57,916 over the previous year, with a mileage of 11,198,858, an increase of 411,476; and 57,704,437 persons were carried, being an increase of 3,488,977 over the number carried during the preceding year. The number carried on street railways exceeded the number on steam roads by 18,486,803.

The average amount received for the conveyance of each passenger was 5.51 cents; and the average cost of carrying each person amounted to 4.41 cents, both these items being slightly reduced since last year. The average profit to the company for each passenger was 1.10 cents against a profit of 1.07 cents during the preceding year. The average cost of a round trip was \$1.48, with a profit of thirty-seven cents. Of the whole amount expended for repairs, the wear of road-bed and track amounted to twenty-two per cent, with fifty-five per cent for depreciation of harness and rolling stock, including shoeing of horses; and twenty per cent was expended in the purchase of horses. The whole number of horses was 5,403, being an increase of 342; the number of cars was 1,809, showing an increase of 84; the number of other vehicles was 171.

The number of persons employed on street railways was 2,398, being an increase of 132 over last year. The number of accidents reported was thirty-five, of which four on the Metropolitan Railway were fatal. The number injured the previous year was forty, of whom four were killed.

EMPLOYÉS.

The number of persons employed by the railroad corporations during the year was 19,453, being 410 more than in the year before. The following table shows the number employed for each of the past seven years: —

1872-73	.	.	.	.	20,182	1876-77	.	.	.	.	19,063
1873-74	.	.	.	.	20,523	1877-78	.	.	.	.	19,043
1874-75	.	.	.	.	18,769	1878-79	.	.	.	.	19,453
1875-76	.	.	.	.	18,854						

The whole number employed by all the corporations making returns to this Board is 21,851.

TERMINAL FACILITIES.

Great interest attaches to the question of facilities for the receiving and handling of freight at Boston. And in order to present some idea of the extent of accommodation actually existing, a circular was sent to all the corporations whose roads terminate here, asking information upon the subject. The full statement of each will be found in Appendix A. From these reports it appears that the Boston & Albany Railroad Company has, at the Boston terminus of its line, about 125 acres of land used or available for the storage and handling of freight, besides elevators with a capacity of 1,500,000 bushels of grain, and including docks with a water frontage of 5,300 lineal feet. In connection with these facilities, 34.61 miles of side track are in use.

The Fitchburg Railroad has over 103 acres, including freight houses, with a grain elevator of a capacity for 160,000 bushels, a coal elevator, &c. Measures have been taken since the reply to the circular to enlarge the terminal facilities of this road.

The Boston & Lowell Railroad has something more than fifty-five acres of land, including a grain elevator with a capacity for 150,000 bushels, and a transfer elevator with a capacity for delivering seventy-five tons an hour, and coal pockets holding 10,000 tons.

The Boston & Maine Railroad has about forty acres, compactly situated within the circuit of a mile, and including extensive coal pockets.

The Eastern Railroad has about seventy-six acres of land and buildings used for freight purposes including docks, connected by nearly fifty miles of track, used exclusively for freight.

The New York & New England Railroad owns about five acres, and has a terminable lease of twenty-five acres. It has, besides, a contract for a large extent of territory not now available.

The Boston & Providence Railroad, having abundant wharf accommodation at Providence, has in Boston only about eight acres of land, occupied by excellent buildings, and relies on its connection with other roads for shipping facilities in Boston.

The Old Colony Railroad has about eleven acres within the city limits, using the Union Freight Railroad for access to other terminals when necessary.

Thus it will be seen that the terminal facilities of the roads ending in Boston amount to about 450 acres, an amount which does not leave our roads wholly destitute, but which is insignificant when compared with the provision made for business in other great seaports. Enterprises are planned, and several are in progress, which will greatly increase the terminals. They must be greatly enlarged if we are to have the increased business which the people of Massachusetts hope for, and which they have reason to expect.

THROUGH BUSINESS FOR EXPORT.

The receipts of flour and grain at Boston during the last nine years are shown by tables in Appendix B. It appears that the quantity of flour received the past year was 2,076,833 bushels, —an increase of 299,610 over last year, or more than 16 per cent. The increase in the receipts of oats was $11\frac{2}{5}$ per cent, and of corn $15\frac{3}{4}$ per cent, while the wheat received amounted to 5,186,293 bushels, being an increase in a year of 1,043,056 bushels, exceeding 25 per cent.

In Appendix B will be found tables showing the receipts of grain at the principal seaports, and the exports of grain therefrom, for a series of years.

The exports of the chief agricultural products from Boston, for ten years, are shown by figures furnished by the courtesy of the collector of this port. By them (Appendix B) it appears, among other things, that for the year ending June 30, 1870, the export of Indian corn was 6,607 bushels; for the year ending June 30, 1879, it was 8,153,028 bushels. There was no export of wheat in 1870; in 1871 it amounted to 81,914 bushels; in 1879 it was 3,499,571 bushels, with 2,638,230 bushels for the five months following June. Of flour, 176,964 barrels were exported in 1870, and 451,544 barrels in 1879, with over 200,000 in the following five months. The export of live animals has increased in number from 650 to 113,259; of hams and bacon, from less than 2,000,000 pounds to nearly 100,000,000; in some years exceeding that amount; of cheese, from 40,152 pounds to over 3,000,000 pounds; and of pork, from less than 3,000,000 pounds to more than 21,000,000 with 13,000,000 pounds more for the five months following June.

The value of this export trade is a matter on which a wide diversity of opinion exists. On the one hand, it has been

assumed that the prosperity of the state, and the existence of its capital, as a commercial city, depended upon this branch of commerce; that the importance of Boston was in almost exact proportion to the number of vessels sailing from her harbor for foreign ports, and that the contest for this trade, begun ten years ago, was one of life and death to our chief city.

On the other hand, it has been argued that it was of slight consequence to the people of Boston or Massachusetts how many cattle, or how many bushels of grain were conveyed at through rates from the West to the steamers which carry their cargoes, under a foreign flag, to a foreign port, and earn freights for foreign owners. We have been told that a freight train passing round the city in the night, over the Grand Junction road, on its way to an East Boston dock, affects our prosperity little more than the flight of a bird over the metropolis. And the zealous advocates of an export trade have been taunted with attempting to accomplish an impossibility by trying to make a New York of Boston. With greater show of reason it has been argued that low through rates compelled the exaction of high local rates, in order to provide the means for dividends; and thus it has been said that the straining to obtain foreign trade has resulted in laying a heavy burden on great industrial interests of Massachusetts.

The truth, no doubt, lies between these extremes. If low through rates did result in exorbitant local charges, crippling the manufacturing enterprise of the Commonwealth, they would be, indeed, pernicious. But no such exorbitant charges exist, nor would they be permitted. A tribunal is provided for the investigation of complaints; unjust discrimination is forbidden by law, and the ear of the legislature is always open to petitions for redress.

No one expects Boston to become the equal of New York as an exporting city; but there is no good reason why she should not have her share of the export trade, and increase that share by the wise use of every means that nature and art place in her hands. To say that she should do nothing because she cannot do every thing, is as unwise as it would be to condemn the patriotic efforts to improve our agriculture, because we cannot rival the fertile prairies of the West. Our little state needs the full development of every industrial capacity. Her chief business is, and must be, to manufacture, and distribute her manufac-

tures; but she need not wholly leave the field of foreign commerce, which has been so fruitful in past time.

It cannot well be doubted that the frequenting of our port by a large number of steamers from foreign countries increases our commercial facilities for the export of our own products. When the movement for an export trade began, direct steam communication with Europe had almost ceased. During one year, 97 steamers only cleared "foreign," including small steamers for the Provinces. Now about 350 steamers, many of them of great tonnage, clear annually for foreign ports. Our few trans-Atlantic steamers frequently sailed in ballast, making heavy charges necessary on freight brought hither, as it had to pay the cost of two voyages. Now foreign steamships come to this port in ballast, making freights for Boston desirable and cheap. A comparison of figures, between the recent "lean years" and the years of excessive importation, would, of course, be worthless. But no business man doubts that the imports of Boston would have fallen off vastly more than they have done if the export trade had not attracted a fleet of ocean steamers to our port. And the share which Boston importers now receive of the reviving business would have been lost to them but for this export commerce.

Nor is this branch of trade wholly without immediate and local profit to the people of the exporting city. A careful and detailed computation, made by the intelligent agents of one steamship line, shows that each of their steamers expends, during every visit to this port, \$3,500, most of which is spent for labor. During the last fiscal year 322 ocean steamers cleared from this port for foreign countries; and the number is largely increased since June 30, the end of the year for United States returns. But, allowing for some of the steamers being smaller than those to which the computation refers, we have over a million of dollars expended by these steamers, of which more than \$800,000 were paid directly for labor, giving day's wages, for a year, to at least 2,000 workingmen. Our chief city has not yet grown so great that we can despise a branch of business which employs 2,000 men, and feeds 10,000 of our people. During the cruel years that have passed, the workingmen and their families would have missed these millions of dollars, if want of energy, or want of wisdom, had repelled from our shores the commerce that has supplied so many families with

bread. And this computation takes no account of the thousands who are employed by the railroads in handling the vast amounts of food exported.

There are still many open questions as to the manner and direction in which the resources of this state should be developed. But it is no longer doubtful that our railroads are to bring vast quantities of Western produce for transportation to the markets of Europe.

ACCIDENTS.

A tabulated statement (Appendix C) gives the accidents on the railroads in this state reported as resulting in death or personal injury. A special report is made of the accident at the Lincoln crossing of the Fitchburg Railroad on May 8, which resulted in the death of Mr. Snelling. This sad event emphasizes the often repeated views of this Board as to the evils of grade crossings of highways, and helps to justify the persistency with which they sometimes resist a clamorous demand for these hazardous conveniences. It also illustrates the need of some better device for securing travellers from danger in the 2,000 places where crossing at a level is still permitted.

The report of a collision on the Boston, Barre & Gardner Railroad, Feb. 8, 1879, is the record of an accident which resulted from disobedience of orders. The Wollaston accident of Oct. 6, 1878, occurred during this railroad year; but for good reasons a full report of its details was given in the last (10th) Annual Report, p. 37. Nothing, therefore, remains to be said of that great disaster except to add that, at the suggestion of this Board, Charles H. Hartwell, the conductor of the freight train, was arrested. He was subsequently indicted for manslaughter, in causing the death of a passenger in the special train. The negligence charged upon him was his failure of duty under the rules of the road to send forward a signal of danger when he ran upon the inward track, leaving the switch thrown out of line. Mr. Hartwell was convicted; but the case was carried to the Supreme Court, on exceptions, and no decision has yet been given.

The whole number of persons injured during the year, including, of course, the accident at Wollaston, was 405, being an increase of 101 over the number reported for the previous year. Of these 208 were passengers, 83 were employes, 32

were persons injured at crossings and stations, and 82 are classed as trespassers. The number of fatal injuries was 115; of injuries not resulting in death, 290. The number of trespassers injured was 82, of whom 54 were killed, including 5 cases of supposed suicide. Nearly 80 per cent of those killed (54) were unlawfully on the track or on the cars. Thirty persons were injured at highway grade crossings, 13 of whom were killed; the number during the previous year was 29 injured, including 20 killed. Thirteen of these casualties occurred at crossings protected by gates or flags, and 17 at crossings not protected by either. The number of passengers injured by causes beyond their own control was 169; the number killed by such causes was 17, being an average of one to 2,246,522 passengers carried. A tabular view is given in the Appendix C of accidents in this state for ten years.

The following statement, taken for purposes of comparison from parliamentary returns, shows the number of passengers carried in Great Britain (not including season-ticket holders), and the number killed and injured, without contributory carelessness on their own part, for five years, and the proportion of deaths to the number of such passengers:—

YEARS.	Number of passenger journeys exclusive of journeys by season-ticket holders.	Number of passengers killed from causes beyond their own control.	Number of passengers injured from causes beyond their own control.	Proportion killed from causes beyond their own control, to number carried.	Proportion injured from causes beyond their own control, to number carried.
1874 .	477,840,411	86	1,613	1 in 5,556,284	1 in 296,243
1875 .	507,000,000	17	1,212	1 in 29,823,500	1 in 418,300
1876 .	538,287,295	38	1,279	1 in 14,165,455	1 in 488,900
1877 .	551,593,654	11	664	1 in 50,144,876	1 in 830,713
1878 .	565,024,445	24	1,173	1 in 23,542,685	1 in 481,691

Eighty-three accidents to employes in this state are reported for the year, of which 28 were fatal. Last year 96 accidents, including 34 fatal ones, were reported. These accidents are stated as follows:—

While coupling or uncoupling cars	25
By overhead bridges	7
train accidents	8
falling from freight trains	24
various other causes	19

Seventy-one of these accidents happened to train-men, and 12 to other employés.

The total number of derailments reported was 14, injuring 170 persons, 19 of whom were killed, all the fatal results being the result of the Wollaston accident. The number of train collisions was 11, one of which resulted in a fatal injury, and one in an injury not fatal. There were 12 collisions with vehicles at highway crossings, injuring 7 persons,—3 of them fatally. These reports, we have good reason to believe, are very imperfect, so far as they relate to accidents not fatal, whether happening to trains or to individual employés. Some companies faithfully report the slightest mischance; others apparently reserve their reports for serious or fatal disasters.

Efforts will be made to have the returns more complete in the future.

In the United States and Canada the record kept by "The Railroad Gazette," an annual abstract of which has been included in the last six reports of this Board, shows for the year ending Sept. 30, 1879, an increase in the number of reported train accidents over the previous year, and of the number of persons injured, but a decrease in the number of persons killed in those accidents.

The total number of reported train accidents, the number of persons killed thereby, and of those injured only, and the number causing death or injury to persons for the years 1873 to 1879 inclusive, is given in the following table:—

FOR THE YEAR ENDING SEPT. 30.	Total Number of Train Accidents.	Total Number of Persons Killed.	Total Number of Persons Injured.	Total Number of Train Accidents caus- ing Death.	Total Number of Train Accidents caus- ing Injury only.
1873	1,344	346	1,381	—	—
1874	987	201	740	131	179
1875	1,179	227	1,052	138	225
1876	954	219	939	154	221
1877	947	313	1,230	132	226
1878	779	200	689	106	143
1879	843	182	751	100	165
Totals in 7 years,	7,033	1,688	6,782	761	1,159

The whole number of "train accidents" reported in "The Gazette" for the year ending Sept. 30, 1879, was	843
Whole number of persons killed by such accidents, was	182
Whole number of persons injured by such accidents, was	752
Whole number of accidents causing death to persons, was	100
Whole number of accidents causing injury to persons, was	165
Whole number of accidents causing derailment of trains, was	532
Whole number of accidents reported, not causing derailment of trains, was	47
Whole number of accidents reported, caused by collision of trains, was	264

The accidents caused by "collision," are classified as follows:—

"Rear collision," where one train is collided or overtaken by a following train	172
"Butting collision," where one train is met by another train	79
"Crossing collision," where trains collide at grade crossings of one railroad by another	12
Unexplained	1

The 532 train accidents, causing derailment of trains by various methods given in detail in Appendix G, may be classified as follows:—

Defective Way.—Such as broken switches, broken bridges, spreading of rails, snow or ice on track, washing out of track, broken rails, broken frogs, land slides, &c., 139 accidents equal to 26 per cent of whole number.

Defective Rolling Stock.—Such as broken wheels, axles, trucks, tires, &c., 58 or 10.3 per cent of whole number.

Carelessness.—Such as misplaced switches, rails removed for repairs, and various accidental obstructions, 95 accidents or 17.8 per cent of whole number.

Cattle on Track.—Thirty-four accidents or 0.6 per cent of whole number.

Malicious Obstructions.—Including misplacing switches, removal of rails, cutting of broken hose, &c., 13 accidents or 0.25 per cent of whole number.

Unexplained.—One hundred and eighty-eight accidents or 35.3 per cent of whole number.

Trains blown from Track by Tornado.—Two accidents.

Runaway Car.—One accident.

Standard-gauge Car on Broad-gauge Track.—One accident.

Of the 188 accidents from "unexplained causes," the greater number were probably caused by "defective way," or "defective rolling stock."

The tables embrace accidents to construction trains, and it may be said that a large proportion of the fatal accidents are due to such trains. It is not supposed that the list covers all

of the minor accidents which have occurred; nor does it include the numerous and often fatal accidents to persons at grade crossings of highways, or while walking upon the tracks, or falling from trains, &c., unless such casualty was caused by or was the cause of a train accident. The record is believed to be a full and reliable one, of all the accidents during the time covered by it which were of sufficient importance to be reported in any of the newspapers of the country.

The tabular statement of train accidents for the last six years (Appendix C) affords matter for careful study by all engaged in operating railroads in regard to the causes of the various accidents reported. It is a matter for congratulation that no accident has been reported during the last year, and so far as known, none occasioned by trains running into open or unsecured draw-bridges, while in the previous five years the average was a little more than four per year, and in the years 1877-8 there were six casualties of that character, causing the loss of many lives and a larger number of injuries to persons, while the increasing number of casualties from boiler explosions should cause the adoption of some more effectual method of examination of boilers than now seems to exist on many, if not most of the railroads of the country. The practice of testing all locomotive boilers by hydraulic pressure at stated periods, without regard to their appearance or apparent defects, has been followed by some of the best railroad managers in the country for several years, and seems to be more thoroughly effective in preventing explosions than any other method, while some master mechanics object to this method, on the ground that any test of this character, sufficient to insure perfect confidence in the safety of the boiler, by itself, must necessarily weaken it to a greater or less extent. This objection seems to be hardly tenable, for the reason that the margin between danger and absolute safety is so broad that a test can be applied sufficient to insure safety under any circumstances ever likely to arise, without, in any way, straining the metal, of which the boiler is made, beyond its elastic limit.

There are so many parts of a boiler, which cannot be reached for examination, without taking it to pieces, that some test other than a visual one, seems to be imperatively called for.

RECORDS OF LOCATION.

By chapter 135 of the Acts of 1878, it was made the duty of the Commissioners to examine the records of locations of railroads on file in the offices of clerks of county commissioners, and to notify the corporations, when such records were found insufficient in substance, or inconvenient in form. And a year after such notice was allowed the corporations within which they might file correct records. An examination of the locations recorded showed that such a law was greatly needed, and that its execution would tend to preserve important rights, both of the railroads and the land-owners. Notices were duly given under its provisions, and most of the corporations notified have filed new records under the law. Some, whose recorded locations are defective in form or substance, have failed to file new ones within the time limited by statute; and we respectfully recommend that in such cases this Board shall be empowered to issue a new notice, and that it be made the duty of the corporations to file their new records within a year from the receipt thereof.

FENCING OF RAILROADS.

The last legislature passed an Act (chapter 205) providing for the fencing of railroads, with certain exceptions, for their whole length, chiefly in order to protect passengers from accidents caused by cattle straying on the track. Only one question has been brought before the Board under this Act; and we respectfully refer to our decision in that case, — the petition of George P. Briggs against the Boston & Albany Railroad Company for some views of the Commissioners, as to the meaning and execution of the statute (Appendix F). After completing their annual examination of the roads, the Board issued a circular calling attention of all railroad companies, to the provisions of the Act.

CONSTRUCTION OF FOREIGN RAILROADS.

Under chapter 274 of the Acts of 1879, it is provided that corporations may be formed in this state to construct and operate railroads and telegraphs in foreign countries. It is also provided that, when it is shown to the satisfaction of this Board that the requirements of the Act have been complied with, their

clerk shall certify the fact. Two applications have been made under the provisions of this Act, viz.: The Sonora Railway Company, Limited, and the Tehuantepec Inter-Ocean Railroad Company. In each case it appeared that all the requirements of law had been complied with, namely, that fifteen persons had associated themselves as above by written articles; that a majority were inhabitants of this state, and that those articles gave the name and capital of the corporation, with the names of nine directors, and, as far as practicable, the termini of the lines to be constructed. The clerk, therefore, under direction of the Board, gave the certificate.

TRANSPORTATION OF MILK.

Although various inquiries have been made as to the provisions of the Statute of 1879, chapter 206, no hearing has been asked, and no formal action has been necessary. One railroad company was notified of its duty to comply with the requirements of section one of that Act.

MUFFLERS AND LIKE APPLIANCES.

Under the first section of chapter 284 of last year's Acts, the Board approved of the devices known as Swift's Improved Muffler, July 1; of McGowan's Muffler, Sept. 29; also a muffler made and used by the Connecticut Railroad Company, Oct. 1. No complaint has been made of the neglect by any corporation to comply with any of the provisions of this Act. And the Commissioners have had frequent occasion to note, with pleasure, the working of the various appliances provided for by the Act, and the relief afforded to the community thereby.

WORKINGMEN'S TRAINS.

An application for a train under the provisions of chapter 348 of the Acts of 1872, was made to the Directors of the Fitchburg Railroad Company by more than two hundred residents on the line of the Watertown Branch and the Fitchburg Railroad; and no answer being made to it, the Board was requested to advise the company to act thereon. In partial compliance with the petition, and with the recommendation of the Commissioners, a workingman's car is now attached to a train leaving Waltham at 6 o'clock A.M., and Boston at 6.35 P.M. Tickets from Waltham and Watertown, distant ten and eight miles, are sold in

packages of ten for one dollar, and from East Waltham and stations nearer Boston, fifteen for one dollar. This arrangement, which seeks to comply with the spirit of the law rather than its letter, is believed to be satisfactory to those who live farthest from Boston, and also to those who pay the lower rate; but no reduction has been made of former rates for residents at Watertown proper, who, therefore, do not use this car. If the Act is ever to be practically enforced as a law, it is suggested that some revision of its provisions is desirable. At present the only condition for demanding a workingman's train is that two hundred persons shall make application for it, without any assurance that such a number of persons, or any other number, propose, or are likely to use such a train.

WHISTLING OF LOCOMOTIVES.

Much complaint is made on account of the annoyance caused by the whistling of engines as they approach grade crossings. One such case was formally brought before the Board, and resulted in a recommendation that the practice should be discontinued in the City of Boston and all compact villages on the line of the road (the New York & New England Railroad). And this recommendation was, with many misgivings, promptly complied with. The decision, as given in the Appendix, illustrates the present condition of the law.

As there stated, the law is peculiar; and the position of the railroad companies in regard to it is embarrassing. The statute requires certain precautions, which must be taken on approaching grade crossings. But the courts have held that a compliance with the statute does not exonerate the railroad company from liability for an accident, if the jury think, in any case, that other precautions should have been taken. Thus, when the law required the ringing of a bell, it was held that, if the jury found that other precautions were needed at the place where an accident occurred, the railroad company was liable for an accident which occurred for want of such precautions. The Board, therefore, believed and intimated in the opinion given, that, while the statute required ringing *or* whistling, yet a jury might be allowed to find, in any case submitted to them, that ringing *and* whistling were both necessary; and they might give a verdict for damages on that ground. In a case tried in the Supreme Court since this opinion was given, the

presiding justice did so rule, and a heavy verdict was given against the defendant corporation.

This case illustrates the hardship to which railroads are subjected, the more forcibly, because the failure to whistle was the result of a request made by the Railroad Commissioners. Thus, on the one hand, the public demand that the nuisance caused by this alarm shall be abated; and, on the other hand, the courts award heavy damages against the corporations that comply with the wish of the people and the recommendation of the Commissioners. If the precaution is used, the road is threatened with an indictment; if it is not used, the road is liable to an action.

So far as whistling is used as a signal for flagmen or gate-tenders to do their duty, this Board has heretofore denounced it as a needless annoyance; other signals accomplish that purpose without annoyance, and employes should perform their duty without any signal. But the use for which this noisy warning is demanded is to alarm travellers; and although every one would be glad to see stationary signals in use at all crossings, which would obviate the need of any other alarm, yet the time has not come for requiring such signals at every crossing, and for relying on them, even if the needed appliance has been as yet invented.

The Board has heretofore expressed the opinion, that, by disturbing the sleep of invalids, and in causing accidents by frightening horses, the whistle caused the loss of more life than it saved. It has also declared its belief that the general use of this alarm impaired its value as a true danger signal. Nothing more remains for the Commissioners than to state the present conflict between the policy which is desired for the comfort of the people, and the necessity forced upon railroad managers by the decisions of the courts.

It may be added that in Indiana great trouble has recently arisen from a statute which compels whistling continuously for a distance of eighty rods from any highway crossing. The corporations determined to "live up to the law, without regard to consequences" to others; and cases of severe physical suffering, and of serious illness, are said to have resulted from the strenuous manner in which the will of the legislature was carried out by railroad managers. The final result is understood to be a general disregard of the more stringent demands of the

statute, which has, however, just been held to be constitutional by the Supreme Court of the state.

RAILROAD SIGNALS.

RESOLVE IN RELATION TO THE USE OF SIGNALS ON RAILROADS.

Resolved, That the board of railroad commissioners be instructed to investigate the subject of railroad signals, and to report the result of their investigation to the several railroad corporations in this Commonwealth, and to the next General Court. [Resolves, 1879, chap. 24.]

In conformity with this resolve, the Board gave extensive notice of public hearings, and have examined many models, and a greater number of working signals, on the railroads of this and other states. The great importance of the subject, and the attention given to it by railroad managers, together with its relation to other matters now under consideration, have induced the Board to place their views in the body of their report.

BLOCK AND INTERLOCKING SYSTEM.

There can be no doubt that, for security from rear collisions, and from accidents occurring by reason of misplaced switches, or open draw-bridges, the block system, carried out by interlocking switches and signals, comes nearer to insuring immunity from accident, than any other known device. The block system, long used in England, and now brought almost to perfection by interlocking devices, is so called because under it each section of road is "blocked" by signals against the entrance of a train, while that section is occupied by another train. Improving on the former system, which only provided for an interval of time between successive trains, the block system secured an interval of space. Under it a railroad was divided into telegraphic sections. Before a train could start from the first station, a signal was sent from the first to the second, and a favorable reply was received; then a signal was made for the train to leave station one, and at the same time station two was notified of the fact; this notification was acknowledged, and the section was "blocked" by a signal showing that it was occupied. When the train reached station two, a signal was sent to station one that the line was clear, and the "block" was taken off. Of course, if the train met with an

accident, or if it was delayed in reaching the second station, the section continued to be blocked; and no other train entered it until a signal from the second station gave notice that the danger had ceased. And the same precautions guarded every section throughout the line.

THE INTERLOCKING OF SWITCHES AND SIGNALS,

combined with the block system, not only secures each section from the entrance of a train while it is already occupied, but also blocks the section for any train while the track is broken by the throwing of a switch, or by the opening of a draw-bridge, thus removing these causes of numerous disasters, while it allows a vast increase in the number of trains.

The method, in brief, is by the use of levers operating switches and signals so interlocked that a signal of safety cannot be given while danger exists, and danger cannot exist until after it has been signalled. In other words, the operator cannot, by negligence or forgetfulness, or even from malice, create a danger, or suffer it to exist, until he has signalled it afar off, to any approaching train. He cannot open a switch before setting a signal at danger; having opened a switch, he cannot leave a signal at safety; he cannot set the signal at safety before closing the switch; he cannot leave the switch half closed, without giving a signal of danger. All these four errors, each of which has cost many lives, are made impossible in a section of road guarded by this system. And the boast is not extravagant, that for this purpose, the working of signals is not trusted to the intelligence, or to the fidelity of a man, but that each man becomes part of an unerring machine, in which his will ceases to operate, and he must act in accordance with the principles of its mechanism.

Mr. Barry, in his work on railway appliances, gives a strong illustration of the perfection to which mechanical provisions for safety have been carried. At Cannon-street Station in London, seventy switch and signal levers are placed in one signal house, making millions of combinations possible, if they were not interlocked. Of these combinations only eight hundred and eight are safe. Yet a stranger, blindfolded or blind, handling these levers at random, cannot produce a condition of danger. He could stop trains and hinder business, but he could not create a possibility of danger without signalling it in advance.

More than this,—because the pulling of the wrong levers, although not causing immediate accidents, does strain the machine, and thus might lead to unlocking of the levers, with consequent disaster; therefore, the attempt and bare idea of pulling the wrong lever is checked by mechanical means, and the uncertain will of man is subordinated to the perfect mechanism of this device.

In operating this apparatus two systems of signals are used, one near the cabin or tower of the operator, and one at a distance sufficient to enable a train to be stopped after the signal is seen, and before entering on the blocked section. The semaphore is used by day for a signal, as being the one distinguishable at a greater distance than any other form. At night, colored lights are used. Mechanical means may be employed for short distances; electricity serves for long distances. To supplement the signal, if it should be obscured by fog or darkness, a "contact bar" is sometimes used, which, with the danger signal, assumes a horizontal position, and by striking the cab of the locomotive gives a warning somewhat like that given by the bridge-guards which strike the person who is exposed on a freight car.

The working of this system for draw-bridges is the same as for switches. The draw cannot be opened until the signal for danger has been set. The signal of safety cannot be given until the draw has been closed and actually locked.

By uniting the interlocking device with the block system it becomes impossible to telegraph safety from one signal station to the station next in the rear, until all the switches are in a safe position for a coming train. It is impossible to move switches so as to allow access from a siding to a track which has been telegraphed as safe for a coming train. It is impossible to so move the switches, or any one of them, after the line has been telegraphed to be blocked. It is impossible for a train to enter a section until its coming has been announced by telegraph, for the signal to enter cannot be given until a signal announcing its approach has been received. The signal which permits entrance into a section cannot be given without the concurrence of signal-men at both ends of the section. The starting signal is reset at danger by machinery behind every train. The signal that the line is blocked must be given from the station in advance to the station in the rear.

This summary, in substance, is borrowed from a description of the combination of the Toucey and Buchanan with the Saxby and Farmer devices, which, aided by some subsidiary inventions, are now in use on a portion of the Pennsylvania Railroad, and on the Metropolitan Elevated Railroad in New York, as well as elsewhere.

The ingenious device of David Rousseau, involving the same principles, and accomplishing the same end, may be seen at the New York Grand Central Depot. The members of the Board have seen the operation of these inventions at these points; and their daily working vindicates the high claim made on their behalf. It will be a happy day for travellers when this system, in all its completeness, has been universally adopted on American railroads.

But the block system, as operated with interlocking devices in England and France, and as used with additional improvements on portions of American roads, requires a large body of skilled and well-paid men. For an unskilled operator, although he could not cause danger, would cause delay and difficulty. Our inventors, therefore, have tried to supply its place by automatic signals, guarding a road and giving warning of danger, without the constant intervention of man. And it is claimed by some of them that their inventions are not only more economical than the English system, but that they are safer. In the language of one of these inventors: "My device is better than a man, for it is always on hand; it never sleeps, and it never drinks."

As a preliminary remark to a discussion of automatic signals, it may be observed that it is a requisite of any system that the normal condition of its signals should indicate danger, so that in case of any derangement of apparatus, accidental or intentional, warning will be given. Thus, failure to act will at most stop or check the movement of a train. It will never cause a disaster. A device that fails in this particular, fails at the outset. It is, also, absolutely requisite that the danger signal should be given far in advance of the point of danger. A signal displayed at or near the point of danger is utterly insufficient and unsatisfactory.

HALL'S ELECTRIC SIGNAL

is the best known and most widely used. He employs an open

circuit; and the current which keeps his signals set at safety is transmitted over wires. This current being broken by an engine entering a section and touching a circuit closer, sets the signal at danger.

1. As a safeguard from rear collisions, theoretically at least, it approaches perfection. The danger signals are set a mile or less apart, and a red disk shows that a section is occupied. A secondary signal, sometimes called a tell-tale, is placed a thousand feet in advance of the danger signal, and informs the engineer whether the danger signal behind him has been set. When the engine passes out of a section, it sets the signal of safety for that section. If the current ceases to work from any cause, a signal of danger will be given. But absolute perfection has not yet been obtained in the construction of the apparatus: and the passage of a train sometimes fails to set the signal of danger; yet, in that case, the tell-tale will indicate danger. And so it cannot happen that both signals belonging to a pair will indicate safety when danger ought to be announced.

2. Station agents, by a separate device, can arrest the progress of a train at a distance of half a mile by a signal of danger.

3. The connection of switches with this system makes it impossible to open a switch so connected without blocking the track by a signal. This occurs at a distance of two thousand feet, more or less; and at the same time a bell rings at the switch, and continues to ring until the switch is closed.

4. The application of this system to draw-bridges appears to secure perfect safety. It is impossible to open a draw-bridge without blocking the track by a distant signal; and if the engineer fails to see, or recklessly disregards the blocking signal, then another signal will arrest his progress, — a mechanical drop constructed of heavy plank, placed two thousand feet from the draw, and so arranged that it falls by gravity when the draw is opened; and if the engineer still presses on, his locomotive is sure to lose its smoke-stack, and he yet has time to check his train and escape disaster. The working of this device was curiously illustrated when it was first used on a road in New York; for the train-men, having a prejudice against it, as a novelty, determined to disregard it; and more than one engineer bringing in his locomotive without a smoke-

stack gave the best evidence of his own recklessness and of the merits of the invention. Now, that draw is opened one hundred and thirty times a day, and it is approached without fear of accident. Two other adjuncts furnish additional safeguards in approaching a draw-bridge guarded by Hall's signals, — a bell ringing at the distance of a mile when the draw-bridge is opened, and a signal given to the bridge-tender if the train enters the blocked section.

5. The notice given to passengers and agents at stations, by bells differing in tone for "up" and "down" trains, announcing the approach of a train is convenient, and tends to prevent accidents. For its purpose it is a perfect device, while it saves the great annoyance of whistling.

6. Highway crossings at grade are guarded by a bell, or gong, placed at the crossing, which begins to ring when a train approaches within half a mile, and continues to sound until the train has passed. This calls the attention of the flagman or gatekeeper to his duty. And if the sound were loud enough, it would arrest the attention of travellers, and warn them of the coming danger. Some device of this kind has been heretofore urged by this Board; and their views are repeated in their report on the Lincoln accident (Appendix E). With such an appliance, giving an alarm sufficient to command attention and always in working order, there would be absolutely no excuse for an accident at a crossing, unless it happened to a man blind as well as deaf; for not only does the bell sound, but a signal to stop is displayed to the eye automatically while the danger continues.

But such a device, in order to be depended upon, must be without the possibility of failure; and neither in theory nor in practice can this be said of Mr. Hall's crossing signal. The ringing is done by the positive action of electricity put in operation by the passing of a train. If the apparatus is out of order no current is produced and no warning is given. The principle that danger should be indicated unless something positive happens to prevent it, is not carried out in this part of Mr. Hall's invention. And, in fact, we learn that such an apparatus, placed within the limits of Boston, does occasionally fail to announce a coming train. Its use, therefore, is only auxiliary; and it will not, as it now exists, allow railroad managers to dispense with other safeguards at highway crossings.

The objections urged against Mr. Hall's block or track and switch signals, apart from their cost, are mainly these:—

(1.) It is said that they are so delicate and complicated, that they often fail. This, to be sure, when the failure is of electric current, does not directly result in an accident. It only delays a train. Each double-track road has orders directing the time of delay on seeing the signal of danger; a time necessarily brief,—say one minute,—and after this the train proceeds “with caution.” But the tendency of frequent false alarms is to reduce the amount of caution; and the cry of “wolf,” too often repeated, may make it unavailing when danger really comes.

(2.) It gives no warning of a broken rail, and does not profess to give such warning.

(3.) Neither does it give warning of a car left on the track by a passing train,—an accident not unusual, especially with freight trains. On the contrary, in such a case, the engine with the portion of a train attached to it, passing off from the obstructed section, sets the signal of safety, and lures a coming train into danger by a false announcement. Something like this happened recently on one of our Massachusetts roads. An engine was sent after dark to take five cars from a siding, push them on the main track, and then haul them away. There proved to be six cars which were pushed from the siding, and when the five were hauled away, one uncoupled car remained on the main track. A passenger train afterwards left the station and came in collision with this car. Fortunately the result was not serious, but it illustrates a danger against which Mr. Hall's signals do not profess to guard.

(4.) So it is said that a train on a guarded section, followed by another train proceeding with caution, would, on passing off, set the signal of safety. The second train breaking down from some defect of wheel or like cause, would remain as an obstacle and possible cause of collision with a third train coming on the section with the assurance of a clear track given by the signal. This, however, could never occur unless the second train were allowed to enter a blocked section, nor without gross carelessness on the part of those in charge of that train in neglecting to flag the section.

THE UNION ELECTRIC SIGNAL,

hitherto little tried in actual working, professes to do away with all these objections, and to guard against all the dangers which Mr. Hall leaves unguarded. Its fundamental difference from his system is, that it uses a closed circuit, with an electric current moving through the rails; and this current holds the signal at safety, from which it is moved to danger by mechanical means, whenever the current is checked, whether by the dangers intended to be guarded against, or by some accident to the apparatus. Thus, in all its operations (as in most of Mr. Hall's), a failure to work gives warning of danger, but no failure can entice a train into peril. The circuit through the rails is made more effective by wires connecting each rail with the next and firmly fastened at every joint. This was found necessary because the oxidization of the rails interrupted their conducting power. Each section is insulated by the use of vulcanized fibre. This seems to be effectual. The mechanical means by which the signal is given, in case of a broken current, is a simple clock weight so arranged that it runs for several days, giving passage for six hundred trains before it runs down. The current is produced by a battery; and in cold weather a kerosene lamp, burning for a week at a time, is used to keep the liquid from freezing.

When a section of road is guarded by this device, the entrance of a locomotive breaks the current simply by placing its wheels upon the conducting rails; and thereupon visible signals of danger are given, and when the train approaches a station or crossing a warning bell is rung. So excellent is its working, that a piece of wire laid across the rails breaks the current and sets the signal of danger; and a stray goat, dragging his chain after him across the track of the Providence Railroad recently, gave the alarm as of a coming train to the gateman at Forest Hills crossing. A secondary, or tell-tale signal, in this system informs the engineer at once whether or not his train has given warning. And station agents have the means of warning a train that is entering on a blocked track. This device is considerably cheaper than Mr. Hall's; and it is claimed, that, being simpler, it is less likely to be out of order. But it certainly has these more important advantages:—

- (1.) As a crossing signal it indicates danger in case of any

accident to the apparatus. The failure of a battery, the breaking of the apparatus by accident or design, would of itself give an alarm, while in such case, as has been said, the Hall device would cease to work, and trains would pass without warning. It is claimed, also, that it has this incidental advantage: under it the bell is sounded by mechanical means, which are released by breaking the electrical current. And so the ringing may be done more powerfully than when it is effected by the direct power of electricity, which is variable, and which as practically used, is supposed to be feebler than the cheap mechanical power applied by clock motion. But the soundness of this claim has not been demonstrated by any exhibition made to this Board. And no crossing signal of this system has yet been exhibited, which seems calculated to arrest the traveller's attention as thoroughly and certainly as it should.

(2.) The breaking or displacement of a rail, by interrupting the current of electricity, gives a signal of danger, provided the displacement of the portions of the rail is sufficient to cause such interruption.

(3.) It indicates the presence of a car on the track by whatever means it came there.

The invention has not been used nearly as much as Mr. Hall's. Its proprietors, therefore, cannot refer to so many witnesses as to its working. Probably it is just to add that, for the same reason, there may have been fewer criticisms on its defects. As has been suggested before, there seems to be this advantage in using a closed circuit, that it requires less from electricity. The labor of this system is done by gravitation, and electric force is only used to control it. Electricians are accustomed to say, — "The less you ask of electricity the more sure you are to get what you want." In the present state of science this is no doubt true.

Among the possibilities of failure with this signal, is neglect to wind up the weight, which would prevent any signal from being given. Some also object to the need of lighted lamps in cold weather; but failure of a lamp, resulting in the failure of a battery, would set a signal of danger. On one road, where a few of these signals are used, frequent breaking of the wires is complained of as giving needless signals of danger. The Fitchburg Railroad Company has had the signal on five miles of its road for more than a year, including the whole of last

winter. Since May it has been in charge of the officials of the road, and their report is highly favorable. If it works well through the winter, it will have had that full and continued testing which such inventions need before they can be commended with entire confidence.

ROUSSEAU'S SAFETY RAILWAY SIGNAL.

This signal has already been referred to as used in blocking the New York Central and Hudson River Railroad, where it has been in successful operation for nearly four years. It resembles Hall's system in many points, — among others, in using an open circuit. It resembles the Union Electric Signal in using gravitation as the power which actually gives the signals, thus requiring a less powerful battery than the devices where electricity does the direct work. The signal is set by a clock-weight; and when wound up, it signals three hundred and fifty trains before it needs winding again. By an ingenious device the lamp on these signals cannot be removed for trimming without winding up the weight.

As in the inventions described before, the engine, when it enters a section, sets the signal at red, meaning danger, and it so continues till the train has passed off, when it sets it at clear, meaning safety. Each of these effects is produced by a "commutator" over which the wheels pass. In places of extra hazard, two danger signals are used, — one called a distance or cautionary signal, a thousand feet in advance of the signal within the section that is to be entered. If this distance signal shows green (or any color selected for the purpose) it indicates that the second signal is red, and that the engineer must stop before entering on that blocked section. This system also provides each station master with the means of stopping any approaching train if danger has been shown to exist; and an indicator keeps him acquainted with every movement on his section of the road. An extra signal, to be used in foggy weather or in dark tunnels, is a rod, which not only strikes the engine, but by an additional device causes the whistle to sound; and it is said it can be applied to the brake, and made to stop the train. The long use of this signal in the Harlem Tunnel is relied on as proof of its excellence. The application of the system to switches and draw-bridges needs no explanation. And the application of all these systems to a single track, while

it presents points of difficulty, is a matter of detail which need not be discussed.

BEAN'S ATMOSPHERIC SIGNAL

is a safeguard against the dangers arising from open switches and draw-bridges; and it is also applicable to stations and crossings. A brief account of this device is given in Appendix G. The Old Colony Road has tested this device by using it at exposed points for more than two years, gradually increasing the number of instruments in use, and now having them working at distances varying from a thousand to two thousand four hundred feet at one draw-bridge, two stations, and several switches. This signal is simple and inexpensive; and, so far as it has been used, and for what it undertakes to accomplish, it seems to be an almost faultless device.

In the Appendix also may be found tables showing some results of the working of Hall's and of the Union Electric Signals; also brief accounts of devices which were exhibited to the Board, but which are not subjects for full reports, because they have not been put to the practical test which is needed before such report can be made.

In conclusion, it is evident that the time has not come when the adoption of any one of the devices exhibited for giving automatic signals should be required by law. No party has asked for legislation; and Mr. Hall strongly disclaims any desire for legislative action. Nor, pending further experience on the part of railroad men, and further experiments by electricians and other inventors, can it be thought strange that railroad companies hesitate to equip their roads fully with imperfect devices, which may soon be set aside for better. Many ingenious men are giving their thoughts to railroad signals. The laws of the force, which most of them are trying to use, are not fully known, and the force is not capable of entire control. The railroad managers of England, and, indeed, of Europe, are more than sceptical as to the use of automatic signals, electric or otherwise. They would regard reliance upon such signals as criminal recklessness, if they were not supplemented by other appliances. Many railroad men in this country share this feeling; and this refers not only to railroad managers, who might be suspected of being influenced by undue economy, but to skilled superintendents and other experts who have no such

motive. At present no one has the right to say of any system of signals as a whole: "This is the system that ought to be adopted on all roads." The desire is natural that some tribunal should decide at once which is the best, and that the legislature should order its adoption. But the time for such a decision has not yet come, even if any automatic device can ever be found which will alone answer all the purposes of a railroad safety signal.

Yet it should be remembered that these imperfect devices do render great service in announcing danger and preventing accidents. The worth of a safety signal is to be estimated chiefly, not by counting the number of its false alarms, but by its well-founded alarms. Even an occasional failure to give warning of danger, while it forbids sole and implicit reliance upon an automatic signal, does not prevent its being of great value as an auxiliary. When the terrible consequences of a railroad disaster are considered, a preventable accident becomes a crime. The public have a right to expect that their safety will be guarded by every reasonable precaution, and that devices designed for this end should not be rejected simply because they have not attained perfection. Railroad managers should be quick to guard their tracks, and especially all draw-bridges and other points of special danger, by those appliances, that seem to them best adapted to insure safety. It is proper to add that our chief railroad companies have shown a praiseworthy spirit, both in testing new inventions, and in adopting those, that, upon trial, have commended themselves to their judgment.

POWER AND DUTY OF THE BOARD AS TO NEW RAILROADS.

A recent application for the route of a new road has led to discussion of the power and duty of the Commissioners when such requests are made. It seems proper, therefore, to state the law as it now exists; and this is more important, because, with the revival of business, new projects for the construction of railroads are certain to be put forward, and several are now pending. A convenient way of setting forth what is now supposed to be the law, is by inserting a decision delivered on a motion made during a hearing by the Board. The hearing was on the petitions of two associations for railroad routes on Nantasket Beach. The ruling was as follows: —

"The question is, whether this Board is bound to grant a

route to each of the petitioning associations, without regard to proof that the public good demands a railroad. The language of the statute is as follows: 'Whenever the directors fail to agree with the selectmen of any town, or the mayor and aldermen of any city, as to the route of their railroad in such town or city, said directors may petition the Board of Railroad Commissioners to fix the route in said town or city, who, after due notice to said selectmen or mayor and aldermen, shall hear the parties and fix the route in such town or city.' The language is imperative. The words used are: '*Shall* hear the parties and fix the route.' The whole Act implies that the parties who have organized to construct a railroad have a positive right to construct it, on complying with the statute requirements. The Board is asked to rule that by implication the power to judge of the exigency for a road is given to the Commissioners. But there is nothing from which a grant of this enormous power can be implied. The words of the Act plainly impose a ministerial duty on the Board, leaving them discretionary power only as to the route to be fixed; and the whole spirit of the Act is in the same direction. The law is the same, whether the railroad is to run through one town or many. But the construction put upon the law by the remonstrants would enable the selectmen of one town, together with this Board, to prevent the building of a road sixty miles in length and running through many towns. For example, a road from Sandwich to Provincetown could be vetoed by the selectmen of Eastham, with the approval of this Board. If the legislature had intended this vast grant of power, they could have found apt words for the grant.

"The law of Massachusetts appears to differ from that of any other state. In all other states that have adopted a general railroad law, some tribunal, some court or commission, must pass upon the question of public exigency before an inch of any man's land can be taken against his will. In New York, for instance, the court must decide on the necessity and extent of the appropriation of land. *Rensselaer & Saratoga Railroad Company v. Denis*, 43 New York, 137.

"In Michigan the question is submitted to a jury, and they must decide in each case of land taken, not only that the particular piece of land is needed, but that there is public need of the railroad. *Mansfield, Coldwater & Lake Michigan Railroad Company v. Clark*, 23 Michigan, 520.

“The legislature of Massachusetts has decided otherwise. And in the case of the Boston & Maine Railroad *v.* Lowell & Lawrence Railroad Company, 124 Mass. Reports, 368–375, the Chief Justice of this state speaks of a railroad company extending its road under the general law as, ‘A corporation constructing under a general law a railroad whose termini are fixed by the corporation itself, and whose route is *not determined or controlled by any public body having jurisdiction throughout the Commonwealth.*’ And again, the Chief Justice says, — ‘It is only when they (the municipal authorities) fail so to agree, that the directors may apply to the Board of Railroad Commissioners, and then *the only matter to be submitted to that Board, under § 26, is the route within that city.*’ If it is said that these are *dicta*, it is enough to reply that the *dicta* of the Chief Justice are not to be lightly regarded.

“Upon the whole, the intent of the legislature cannot be doubted; and it has left no discretion to this Board except as to the route to be given to the petitioners. Two objections have been urged against this view. (1.) The inconvenience of allowing every set of petitioners to build wherever they choose, and to build as many roads as they choose. The strong case has been supposed of a railroad from the Boston & Albany Station in Boston to the old State House and thence to the old City Hall at Charlestown. But the remonstrants cannot deny that, under their construction of law, such a route can be granted by the mayor and aldermen; and neither this Board nor any other tribunal could forbid it, although by its control over grade crossings the Board might turn it into an elevated railroad. But the legislature has thought that the cost of such enterprises would be a sufficient check. It has held that a willingness to pay the cost was sufficient assurance of an existing public need. Whether this is wise is not a question for us to discuss. Probably it occurred to the legislature also that there is another check on the multiplication of needless roads in the very fact that, by the law, the number which may be built is without limit. It is probable that more than one existing railroad is saved from having a rival, by the fact that such a rival, if constructed, would be exposed to the possibility of still another rival. (2.) It is argued that this part of the law is unconstitutional. It is admitted that private property cannot be taken without the owner’s consent, except for a public use. It is

claimed that some tribunal must decide the question of exigency, and that our railroad law provides no such tribunal. The legislature has the power; and it has been held that, having decided on the public exigency for a railroad between two places, it may delegate to a corporation the power to decide on the route, and consequently to designate the property to be taken. This question was fully considered in the great case of the Boston Water Power Company *v.* Boston & Worcester Railroad Company, 23 Pick., 360. But our legislature has gone further, and has delegated the power of deciding on the public necessity for a railroad to twenty-five men unnamed and unknown. Indeed, the power is delegated to one man; for any man with capital can associate with himself twenty-four others (who need not be men of means), and he may build a railroad wherever he pleases, subject only to certain restrictions as to crossings and as to land already used for public purposes. In other words, the law-making power has decided in advance that there is an exigency for every railroad for which the necessary funds can be subscribed. It is argued that the legislature has no right to make such a decision; no right so to delegate the power of eminent domain. But it is a sufficient answer to this argument that this Board, not being a judicial tribunal, will not set aside a statute of the Commonwealth as unconstitutional. Especially it will not do so when the statute has received the implied assent of the Supreme Court, although its constitutionality was not argued before them.

“The decision of the Board, therefore, is that where the preliminary steps for organizing a railroad association and asking for a route have been legally taken, and where the selectmen have refused a route through their town, this Board is bound to grant a route, without proof of public exigency, and without regard to their own opinion on that question. It follows that if two associations or twenty ask for routes, their petitions must be granted, unless some physical obstacle makes construction impossible. The only question as to each is, where will it do the most good and least harm? The Board must, therefore, grant routes both to the Nantasket and to the Marine Railroads; and the only question on each petition is, which is the best route for the road? One question has been suggested, but not argued, viz., whether the petitioners can select their termini, or whether this Board is at liberty to vary the termini, as they may vary

every other point in the proposed routes. On the one side, it is claimed that the parties have an absolute right to fix each terminus at the exact spot desired by them. On the other, it is said that if the railroad asked for is substantially allowed, the termini may be changed by the Commissioners, even if the road is somewhat shortened. As this point has not been argued, no decision is given."

Doubts have been expressed by prominent members of the legal profession as to the constitutionality of this law, which delegates to persons unknown the right of deciding whether an exigency exists for exercising the right of eminent domain, and for taking private property without the owner's consent. As the Board is frequently called upon to act under the law, it seems proper to offer a few suggestions upon this point.

It is settled law in Massachusetts that the legislature has the power to decide whether a necessity exists for taking private property for a public use, and that it may delegate this power. The first point is fully discussed in *Talbot v. Hudson*, 16 Gray, 417, and the second in the case above cited from the 23d of Pickering.

"The determination of the legislature is not conclusive that the purpose for which it directs private property to be taken is a public use, *but it is conclusive, if the use is public, that a necessity exists which requires the property to be taken*" (*Talbot v. Hudson*). But the courts have held many times that land taken for a railroad is taken for a public use. Only on this ground could it be taken at all without the owner's consent. The legislature, therefore, has decided the point within its province, namely, the necessity, while the law as to the public nature of the use had already been decided. The law-making power has determined that whenever men are willing to risk their money, a public necessity for a railroad exists. The decision may not be thought wise, but courts do not criticise the wisdom of legislative acts. Many special charters have been granted unwisely. At all events, a great number of roads have been chartered and not constructed, but the decision of the legislative power in each case is binding on the courts.

In delegating to voluntary associations power to take land, the legislature only went a little further than they have done in innumerable instances where they fixed the termini, and left the selection of a route to the interested parties; and they act on the same ground in both cases.

"The interests of the corporation and those of the public were so nearly coincident, it being plainly for the advantage of both, that the shortest, safest and cheapest route should be chosen, that the power might be safely intrusted to a corporation thus constituted" (23 Pickering, 360, 396).

So, under the General Railroad Act, the interest of the corporation and the public coincide to this extent, that it is not desirable to construct a railroad unless it can be made profitable; and, if profitable, then it is supposed to be proved that there was public necessity for it. In one important respect the General Railroad Act is more guarded than the charters were. They gave full power to the corporation to select the route between the termini. This Act takes away that vast power, and gives it, first, to the local authorities, and in case of disagreement, to a tribunal supposed to be impartial.

It is said that, under a general railroad law, the power to decide the question of exigency is granted to men unknown, while persons in whom the legislature trusted were named in special charters. But under those charters the power was delegated to men neither named nor known. The directors, of whom the legislature could not have foreknowledge, had power to fix every inch of the route, and thus to decide on the exigency of taking every rod of land actually taken. The parties named in the charter did not necessarily build the road, or select the route. And if charters were granted on the faith of the legislature in the parties named therein, then many were granted on a faith utterly without foundation. Railroads are built and controlled by directors; and they are chosen by stockholders, who cannot be known in advance, or before a charter is granted.

The power of eminent domain has been exercised in this state in at least five ways:—

1. Directly by the legislature, deciding for itself in a particular case (*Haverhill Bridge v. County Commissioners*, 103 Mass., 120).

2. By delegation to a corporation, as in all cases of charters.

3. By delegation to commissioners named in the Act, or to be appointed.

4. By delegation to tribunals local and elective, as to selectmen or county commissioners.

5. By delegation to persons not named or known — perhaps

not existing at the time — who may wish to engage in a business supposed to be for the public good.

Under this last head are the Mill Acts. Says Chief Justice Shaw: "The right by which individuals owning mills are entitled to flow lands of proprietors of meadows *are essentially of the same character with that of the plaintiffs* [a railroad corporation], and the main difference is, that the former are obtained by the operation of a general law, and the latter by a special Act" (23 Pick., 360, 394). And again: "The mill-owners obtain an easement or franchise . . . without and against the consent of the owners, upon high considerations of public expediency and necessity."

It has been said that the Mill Acts were older than the state Constitution, and, therefore, they do not furnish a precedent. But if they were repugnant to any provision of the Constitution, its adoption would have made void the Act (12 Anne, chap. 8) which was in force when it went into effect. And it would have rendered invalid the re-enactment of that law in 1795 and subsequently.

The principle that private property cannot be taken without the owner's consent, except for public uses, is much older than the state Constitution. It is a general principle of law, acknowledged in all civilized countries. (See Judge Metcalf's note, 11 Mass., 366.) It is not set forth in the Constitution. It is recognized there, or rather taken for granted, in Article X. of the Bill of Rights. And the Mill Acts can only be sustained on the ground that they are general laws authorizing the taking of private property for public uses. But if those Acts are constitutional, then the general railroad law is equally so. Under the first, any man or corporation designing to manufacture cloth or any other article may deprive land-owners of the use of their estate without their consent. And the same thing is done under the Railroad Act. In each case the public good creates the public necessity that is supposed to justify the interference with private right. In the infancy of the country mills were indispensable; and the favor of the legislature continued when the reasons ceased (5 Pick., 292, 294). With the growth of the country, railroads have appeared to be indispensable; and the principles formerly applied to mills have been applied to their construction. But the doctrine of public use is much more apparent in regard to railroads, which are dis-

tinctly recognized as directly of public use, and which are controlled by corporations *quasi* public, while manufactures are indirectly of public use, and are conducted by private companies or individuals.

While these arguments and decisions tend to show that the law is constitutional, a diversity of opinion exists as to the policy of giving to individuals the unlimited right of constructing railroads, without the decision of any tribunal that such construction is demanded by the public necessity, and of requiring that a route should be given to the petitioners in all cases, even if it should appear that no road was needed. Upon a question so delicate the legislature would not expect or desire the opinion of this Board, but it seems to be a duty to suggest the fact that there is such a question.

THOMAS RUSSELL.

ALBERT D. BRIGGS.

EDWARD W. KINSLEY.

BOSTON, Dec. 10, 1879.

The following decision was published after the printing of the Report : —

CENTRAL RAILROAD COMPANY OF NEW JERSEY *v.* PENNSYLVANIA RAILROAD COMPANY.

(31 Equity Reports of New Jersey, 475.)

“ The grant (under general law), by the Legislature, of powers to exercise the right of eminent domain by building railroads for public use, to any persons who will undertake to construct them, leaving it to such persons to select the routes for themselves is, of itself, a determination by the Legislature that such roads are necessary, and useful for the public.”

And such a law was held to be constitutional. The law of New Jersey, although differing in detail from ours, is the same in principle. And the Constitutional provision on that subject in New Jersey, is substantially the same with that in our Bill of Rights.

REPORTS

ON

MATTERS ESPECIALLY REFERRED TO THE BOARD

BY ACTS OR RESOLVES OF THE LEGISLATURE.

SAFETY SWITCHES.

Resolved, That the board of railroad commissioners be instructed to investigate the subject of safety switches on railroads, and report the result of their investigations to the railroad corporations and to the next General Court. [Resolves, 1879, chap. 31.]

Public notice was given of a hearing to be held July 10, and the continued hearings ended on October 10. Representatives appeared for Wharton's, White's, Gordon and Duggan's, Reynolds's Lorenz's, Heyl's, and Bryant's switches. They were fully heard; and, in addition to previous examinations, the practical working of their inventions was witnessed when there were any in operation within reach.

The existing law, chapter 372, Acts of 1874, being a re-enactment of chapter 24, Acts of 1871, is as follows: "All switches hereafter laid down in any railroad track which is used, or intended to be used, for the running of passenger or mixed trains thereon (including those so laid down in renewal of existing switches), shall be of the kind known as the Tyler switch, or some other kind of safety switch approved in writing by the Board of Railroad Commissioners. For each switch laid down in violation of the provisions of this section, the railroad corporation shall forfeit a sum of two hundred dollars, and the further sum of five dollars for each day the switch is used."

Under this Act the Board approved the Wharton switch July 12, 1871; White's switch March 7, 1879, and the Gordon and Duggan switch Dec. 10, 1879. A modification of the Tyler switch, presented by F. J. Calhoun, was also approved June 5, 1871, although it was not believed to be such a modification as required approval.

Mr. Wharton now asks the Board to recommend (1.) That the law should be repealed altogether, or (2.) That the Wharton should be substituted for the Tyler switch in the statute. He claims that the Wharton is the best switch known to-day, as the Tyler was when its merits were recognized by the legislature. He further argued that if the law were repealed, his switch would be freely bought in this state, in order to protect

the railroads from the liability to heavy damages in case of accidents, but said that, while a cheaper and, as he asserts, an inferior article is specially named in the law, he will have difficulty in introducing his better and more costly invention. He also argued that, if any switch is to be named in the statute, it should be the best.

The Board would be slow to recommend, and the legislature would probably be more slow to enact, that railroad companies should be compelled to adopt any one appliance of any kind. Such a law would create a monopoly, and in spite of all safeguards would bring a risk of extortion. The feeling on this subject is shown by the action of the General Court, who, in legislating first upon this subject in February, 1871 (chapter 24), did not confine railroads to the use of the Tyler switch, although at that date no other safety switch was used in this state, but wisely permitted the use of any other approved device of like nature.

We cannot say that, with all its good points, the Wharton switch is so far superior to all others that it ought to be made an offence to use any other. It has great merits, but we would not condemn all other existing and future inventions on that account. And it would be wholly unjust to do this while there is a decided difference of opinion among practical railroad men as to the comparative merits of this and other safety switches.

As little can we recommend the repeal of our present law for the sake of taking away an implied preference for the switch named in the statute, nor even an amendment striking out the name of this appliance. All idea of favoritism, under the existing law, is repelled by the fact that no patent now exists for the Tyler switch. No selfish interest is served by continuing the use of this name on the statute book. The reason for once inserting it has been given. While it remains there the Board will not feel at liberty to approve any inferior switch. No intelligent railroad manager will be misled by the form of the present statute.

To repeal the law altogether would be disastrous. The experience of this Board has shown that the law was needed, and still is needed, to insure the use of any safety switch by some of the railroads in this state. And this experience is confirmed by the testimony of Mr. Wharton himself, that, in

Maine, New Hampshire, Vermont, and Rhode Island, where there is no law compelling the use of such appliances, not one of his excellent switches is in use, while switches decidedly inferior are used. This is strong proof of the need of compulsory legislation; and a great wrong would be done to the public if all our railroads were left free to adopt or reject all safety switches, in the faith that in that case they would all choose the invention of Mr. Wharton. Since the passage of the original Act of 1871, the process of replacing the old common switches by safety switches of the various kinds named above, has gone on constantly, till there are few or no switches over which passenger trains are run, except approved safety switches.

For the reasons given, the Board recommends no legislation on the subject.

Other switches than those named as approved by the Board have merits; and probably some will be found worthy of approval when they have borne the test of more extended use.

COLOR-BLINDNESS.

Resolved, That the board of railroad commissioners be instructed to consider whether any legislation is expedient or needful with reference to the employment by railroad corporations of persons afflicted with color-blindness; and report thereon to the next General Court. [Resolves, 1879, chap. 30.]

The Board gave early attention to this subject, witnessing an interesting examination of railroad employés, conducted by Dr. Jeffries, and listening to his explanation of his theories and methods. They also united with him in sending circulars of inquiry to various experts and officials in Europe. They have examined a large number of persons, chiefly employed by several railroad companies, using for tests, colored worsteds, as recommended by Professor Holmgren, and as practised by Dr. Jeffries. This examination was supplemented by experiments with colored flags and lanterns whenever any visual defect was found to exist. They have also sought, by reading and conversation and correspondence with persons practically interested in the matter, to obtain information on the subject.

Any one who engages in the study, will find himself anticipated in every direction by Dr. Jeffries, who has pursued it with unwearied industry, and to whom the community is deeply indebted for his labors. If he has exaggerated the importance of his subject, or the frequency and extent of the defect which he

discusses, it is the natural and honest exaggeration of an enthusiast devoted to a specialty in science.

It has long been known that there is such a defect in vision as color-blindness. In rare cases it is total; more frequently it is partial. Various divisions have been made by different writers in describing this defect. Professor Holmgren's division is as follows: I. Total color-blindness. II. Partial, which he subdivides into: 1. Complete color-blindness, including red-blindness, green-blindness and violet-blindness. 2. Incomplete color-blindness, where the sense as to one or more colors is feeble. His divisions are cited, for he is often quoted; and it is necessary to remember that with him one subdivision of "partial color-blindness," is "complete color-blindness," as this phrase is likely to mislead. The different species of this defect, practically important in connection with railroads, are total color-blindness, which is very rare, red-blindness and green-blindness. The red-blind confound red with green, with gray or brown, and sometimes with black. The green-blind confound green with red, or with gray and brown. The inability to distinguish red and green, is not only the most marked species of color-blindness, but it is in practice the most important, as these colors have been very generally chosen to signify danger and safety on railroads, and universally to mark port and starboard on the sea.

Generally the defect exists from birth, being often hereditary. The learned Dr. Pliny Earle, who wrote a valuable article on this subject in 1845, knew seventeen persons of different generations in his own family, who were utterly unable to discriminate between red and green. Sometimes it is caused by sickness or injury; and frequently it results from the excessive use of liquor or tobacco. Often the defect is unsuspected for years. This happened in the case of the famous John Dalton, whose name has long been connected with this peculiarity of vision. It is the general belief in Rome that Garibaldi selected the red flannel, which increased the exposure of his soldiers to the marksmen of the enemy, in full belief that it was dark green, laying his hand on a scarlet piece of cloth instead of a green one, when choosing the material for their uniform. Even if the story is unfounded, it shows that the existence of total color-blindness is recognized and notorious, not only among men of science, but among all classes of people.

It need hardly be said that such a defect is a source of danger, while railroad trains are run by colored signals. It is true that the Commissioners have not been able to find that any railroad accident has ever been clearly traced to this cause. Professor Holmgren indeed says that, in a certain trial, "testimony was adduced which had led me to suppose that color-blindness was one of the principal causes of the disaster." He and other writers speak of it as a cause of accident in other countries, or in distant places. *The Scientific American* in the number for July 9, 1853, refers to color-blindness as a possible cause of the terrible Norwalk accident of May 6, 1853, by which forty-six persons were killed. But no investigation on this point seems to have been made, and upon examination the facts do not appear to warrant any such conclusion. The same excellent journal had called attention to the subject in its number of May 28. The director of the Swedish State Railroads, C. O. Troilius, who has given especial attention to the subject, writes, "No accident traceable to color-blindness, as far as we know, has occurred on our lines." One of the railroad journals of this country, *The Railway Age*, in its investigation of the subject, has received answers from thirty-seven superintendents, and other managers of railroads, no one of whom had ever heard of an accident resulting from color-blindness. This, of course, does not prove that no such accident ever did occur.

The possibility of accident arising from this cause has been shown. And as to one employé, recently for the first time discovered to be color-blind, it appears that on former occasions he has led several engineers into errors, for which they have been reprimanded. No doubt now exists that he did this by displaying the wrong signals. Each of these errors might have resulted in disaster. The defect was unknown to the man himself, but was manifest at once on his being examined by the intelligent officer detailed by the superintendent of the road for that duty, and whose skill and thoroughness is elsewhere spoken of. It is hardly necessary to add that the person examined is now in a position where perception of color is not needed.

In *The Chicago Railway Review* for March 30, 1878, is a communication expressing a belief that many accidents have been caused by this defect. And the writer speaks of one case

known to him, where an engineer who had had many narrow escapes, finally proved to be color-blind, and acknowledged the fact. But each of these narrow escapes might have been a disaster. And the case shows the need of examination as clearly as if fatal accidents had occurred.

The investigations of the Board have convinced them that while danger is possible, and while all needed precautions to avoid such danger are an absolute duty, yet its extent has been greatly exaggerated. When a large per cent of color-blindness is reported among a body of employés, great allowance should be made for the agitation and nervous excitement under which they labor when they are examined. They are called in from the open air to a room perhaps imperfectly lighted, and in the presence of strangers are subjected to an investigation which is mysterious to them, and of which they have heard that their daily bread and that of their children may depend upon its result. While they are thus "on trial for life" they often make mistakes which wholly misrepresent their capacity for distinguishing color, and which give a false idea of their general intelligence.

Of course, if it is unsafe to employ a man afflicted by color-blindness, he must be discarded. It would be false sympathy and misguided pity that would retain him. But it would be at once foolish and cruel to remove three or four per cent of our railroad employés from their places, if they are in fact fully qualified to perform their duties.

The use of the phrase "color-blindness" tends to mislead. It is applied to all persons whose sense of color is in any way deficient. The word "blind" is not so used, as applied to men whose vision is defective. We do not call near-sighted persons "blind." As all would agree that blind men are not fitted to run an engine, so without an explanation of the term, it would seem plain that color-blind men, especially when afflicted with "complete color-blindness," should not be employed, when it is necessary to distinguish the color of signals. But the word as used by specialists, includes persons who, in the ordinary walks of life, and in their special employment on railroad trains, do, habitually and accurately and without failure, distinguish all colors, but who, upon examination, sometimes erroneously select as having a green or red tinge a "color of confusion." And knowing this, we may well hesitate before we reject from

railroad service, all who are pronounced "color-blind." Professor Holmgren himself says: "He whom we call color-blind is not, correctly speaking, at all blind to colors."¹

The public are also liable to be misled by witnessing experiments with persons totally color-blind. There are a few such persons; and their efforts to select and match colors furnish a striking and amusing exhibition. When we see green matched with scarlet, or a bright red skein of worsted confidently described as black, we are naturally impressed with the visual imperfection of the person on trial. And when we are told that four or five per cent of the male population have this defect, and that up to this time, there has been little or no examination of railroad employés, the effect is to shock and alarm us. But the alarm is diminished when we learn that out of a hundred persons whom science declares to be "color-blind," not one may be incapable of rapidly and correctly distinguishing one color from another.

It is also to be remarked that color-blindness does not imply indistinct vision in other respects, but is often attended with a quicker perception of faintly illuminated objects. And it is another ascertained fact, the reverse of what some might expect, that color-blindness partially disappears when colored objects are illuminated by artificial light. And, therefore, "contrary to common belief, our present railway signals are safer, so far as liability to mistake by the color-blind is concerned, by night than by day." But it is added, "though safer they are not safe."²

This is one reason why persons who have been pronounced to be color-blind, prove on examination, to have full perception of the colors of lanterns when placed at great distances and under trying circumstances. Such has been the experience of the Commissioners who have thus experimented on railroad employés who are theoretically color-blind, and who promptly distinguished white, red, blue and green lights at a great distance, while engines were going out and coming in, with all the attendant annoyance of smoke and steam. The same men, also, distinguished by daylight, red, green, and white flags, at a like distance without failure, while a person totally color-blind who

¹ Smithsonian Report for 1877, p. 159. The Board is indebted for a copy of this Report to the courtesy of the Secretary of the Interior.

² See Wilson's excellent work on Color-Blindness, pp. 8, 30, 48.

happened to be present on one occasion, pronounced a scarlet flag to be black, when it was held directly before his face.

One explanation of this combination of theoretic color-blindness with real and unerring sharpness of color-vision, may be found on examining the plates and directions used by scientific men to illustrate this subject. In Professor Holmgren's plate, as published by Dr. Jeffries, will be found the green test I followed by five "colors of confusion." And on p. xix, it is said: "If the person examined takes any of the confusion colors (1 to 5) to put with the green, he proves himself color-blind; *or even if he seems to want to put them together.*" But No. 1 of the confusion colors seems to many persons of perfect vision — perhaps to a majority of them — to contain, mingled with gray, a slight tinge of green. And this incident occurred at one examination. A railroad employé had shown great readiness in picking out different shades of green, and finally selected a skein of worsted corresponding to No. 1. Upon this, an expert in color who was present, remarked that the man was also an expert, and declared that he was the keenest in vision of all that had been examined. Yet, this man had proved himself to be technically color-blind, and so, unfit to earn his living by doing his daily work on an engine.

It is said of some of these "color-blind" persons who run engines with success, that they "guess" at colors by the varying intensity of light, — that they do not see colors properly or as persons of normal sight see colors. But if they always judge rightly no one cares whether they see as we do, or not. Dr. Holmgren says: "Just how a color-blind sees a color it is not possible to decide; for it is a subjective sensation." The only practical question is, whether these persons in fact, can rapidly and unerringly distinguish one color from another.

It is suggested that, when men judge of color by the relative intensity of light, they are liable to be misled, when fog, or sleet or smoke obscure a signal lantern, and so diminish the intensity of its light. And this would seem to be a reasonable suggestion. Thus Dr. Spalding, who examined the men employed on the Maine Central, is reported as saying, that to a color-blind man a fog may turn a red light into green. But he does not state as a fact that this ever occurred. And in regard to a color-blind engine-man, whom he examined, the testimony was that he never failed, under any circumstances, to distinguish

red signals from green. Nor is any case recorded, so far as is known to this Board, of a "color-blind" man who could distinguish red lights from green in clear weather, and who has mistaken red for green in foggy weather.

The Commissioners tried a number of experiments upon persons who failed in the ordinary tests of color perception, by placing at distances of five hundred or seven hundred feet, red lanterns muffled, doubly muffled and obscured by a smoke-colored fabric; with the idea that this artificial obscuration of light would have the like effect with that of snow, or sleet or mist. But in no case did any man, who could distinguish the lights at that distance, confound the obscured light with green, or hesitate to decide rightly on the color. A smoked white glass was used with the same effect.

But the one man who was found unable to distinguish colored lights at a distance, did repeatedly mistake a muffled red light for green, and also a smoked white lantern. It might be thought that he always guessed at random and only happened to repeat these errors. But he repeated them on more than one occasion, and it seemed that there must be a special cause for these special blunders. His case seems to confirm the theory that persons really color-blind do judge of colors by their relative intensity, giving them names associated in their minds with that degree of intensity. Such a man would, of course, be utterly unfit to take any part in running a train; nor would he be so employed by any manager cognizant of his defect.

The effect on the vision of color-blind persons of increasing or reducing the intensity of light has been differently stated. A case has been recorded of a red-blind man who could, for his eyes, change the white light to green by screwing down the wick, and who made it red by screwing it down yet further. But to most persons red seems more brilliant and intense than green; and so it is stated by Professor Hölmgren, speaking of all the color-blind. In another portion of his work, however, he says that to the green-blind green is weaker than red, while to the red-blind red is weaker than green. Probably all the peculiarities of this defect are not yet known; and the Commissioners regret that this season has not yet afforded them opportunities for trying practical experiments on color-blind persons in snowy or even in very foggy weather.

It has been suggested, that in railroad matters all difficulty on

the score of color-blindness might be removed: (1.) By selecting other colors as signals, and by discarding red and green; or (2.) By using signals differing in form instead of color, in order to indicate danger and safety. But it has been proved to be impracticable to dispense with red and green. Blue is objectionable because blue glass intercepts so many rays of light that it becomes very feeble, and can only be seen at a short distance; yellow is too near akin to white, as all white lights have some yellow; black is of no service at night; and it need not be said that night-signals are the most important.

Nor can form alone be well used to designate safety and danger, because a difference in color is seen sooner than a difference in form, and more persons would fail to distinguish form at a distance than would fail to distinguish color. Of course a difference in the form of signals, as well as of their position, may be used as an auxiliary to the difference in color, and both are so used with good effect; but the whole body of railroad men and managers would protest against discarding green and red as signals.

Efforts not wholly unsuccessful have been made to remedy the defective vision of the color-blind by the use of colored glasses, or of glasses enclosing a colored liquid; but up to this time no device has been found that would be satisfactory in case of real color-blindness. A similar statement may be made as to the special education of color-blind persons. Something may be done to diminish the defect, but no amount of education in color would fit a person really color-blind to drive an engine; and the Board agrees with Professor Holmgren in his conclusion: "As long as the existing system of signals used on railroads is considered in almost all respects the best known, it is indispensable that no one incapable of rapidly and accurately distinguishing red, green and yellow should be allowed to fill any position on railways involving any connection with colored signals." The question which has been found difficult to decide is: Who are so incapable?

A brief statement of the laws and practice in various countries as to examinations may be of some value.

In England no law exists which requires examination; but the principal railroads, and perhaps all, examine their employés for color-blindness, and accept no engine-drivers or signal-men without previous examination. The method, however, is sim-

ple; few men are rejected, and the tests applied are not considered as sufficient by those especially interested in the subject.

In the Cunard line of steamers an examination is held previous to every departure of a steamer from Liverpool. This is done simply by holding a board, marked with various colors, at a short distance from the person examined, and asking him to name them. The examination is made of common sailors as well as of officers. In the Leyland line all candidates for position as master, first and second mate, are examined as to their knowledge of colors by the same person who examines in navigation. Pieces of glass are used, colored green, dark green, red, blue, sky-blue, yellow (dark and light), and white.

In Sweden, no law has been passed compelling an examination, but no one is allowed to enter the service of the state railroads until he has been found faultless in the faculty of discerning colors. Since 1876 all have been examined, nearly three per cent being found more or less defective.

In Holland, the regulations require examination for railroad employés, as well as for the naval and mercantile marine.

In Germany, examinations have been officially recommended, and they have been made, but not in a manner satisfactory to those who have made the matter a specialty. The tables, as republished by Dr. Jeffries, show that only 319 color-blind persons were found among 41,444 examined, being considerably less than one per cent.

In Italy, no regulation is published, but inspectors examine applicants for employment as to their power of distinguishing colors by natural light, and by lamp-light. Apparently the examination is practical, and not scientific or technical.

In France, no law seems to have been passed, but examinations are made on many of the railroads.

At the meeting of the International Medical Society, held this year at Amsterdam, a code was reported by Professor Donders for regulating this matter, and was recommended by the society.

In this country, examinations have been made by many railroad companies since attention has been called to this subject. Dr. Keyser, of the Wills Eye Hospital, is reported as having examined in eight months all the employés on all the roads terminating in Philadelphia, excepting the Pennsylvania Railroad. His report was, that three and a half per cent "have defects of

such a character as to make them really incapable and unsafe to fill the positions they occupy." He found, also, that an engine-man who was green-blind never mistakes as to the color of signals. In Maine, an examination heretofore referred to was made on the Maine Central Railroad, with results not unlike those of Dr. Keyser.

In the United States army, all accepted recruits are now examined for color-blindness, and defects are noted, but are not cause for rejection, except for the Signal Corps. Examination is made by the use of test-wools, according to Professor Holmgren's method. The object of the examination is stated as being twofold: to avoid assigning to the color-blind duties for which they are unfitted; and the accumulation of facts to show whether further restrictions are needed on their enlistment. For the report on this subject the Board is indebted to the kindness of Surgeon-General Barnes.

The Board early became convinced that the possible dangers of color-blindness were such that examination ought to be made at once of all the persons employed on our railroads, whose duties are in any way connected with signals. A circular was accordingly sent to the president of every railroad company operating a road, asking that all such employes might be examined, and the results reported to the Board. One object of this was to prevent accidents arising from color-blindness. Whatever view might finally be taken as to the extent of the danger, the mere existence of it seemed to call for action without delay. Valuable information, also, was expected from the results of these investigations. And this hope was not disappointed. Reports received from the various roads show that intelligent and careful investigations were made on most of them. The Commissioners have availed themselves of the information thus obtained, and have, where it was possible, followed up the experiments by further tests of persons found defective.

A striking result of these investigations was the effect upon the railroad officials who conducted or witnessed them. There had been much scepticism among them as to the existence of color-blindness. The experiments opened their eyes to a source of danger hitherto unknown, and insured attention to this matter in the future.

The Board has been criticised for advising these examina-

tions, made by "laymen," as distinguished from medical or ophthalmological experts. But the Board was not authorized to direct the employment of such experts in advance of any law upon the subject. And, what is more to the purpose, the Commissioners were soon convinced that any man of ordinary intelligence could conduct such examinations — at least the preliminary ones — so as to secure practical and valuable results. Printed directions are given in various works on this subject. They may be found on a page of directions issued by the medical department of the army. These are addressed to all medical officers. But, if these investigations were as critical as they are sometimes supposed to be, only experts in ophthalmic science could conduct them; and it might be doubted whether even such experts were skilled in the specialty of color-blindness, and, indeed, whether this state contained more than one competent person. The Commissioners have not felt that they were shut up to register the views of any one expert. The legislature referred the matter to three "laymen" for investigation, assuming that they were competent to study it; and they are convinced that, so far as practically necessary, any man of average sense can test an employé so far as to learn whether it is safe to trust his sense of color in railroad service. Most persons, on examination, speedily prove their freedom from defect. The army directions provide that a green test-skein of worsted shall be laid aside, and the recruit shall be requested to place alongside of it all the shades of that color. And, *"if he promptly selects the shades of green only, then, after he has thus selected eight or ten skeins, the examination may be discontinued, for he is not color-blind."* Now, almost all persons do this; and it is evident, that, so far as this test is concerned, it can be applied by any one who is not color-blind himself. There is no mystery in the use of this test, — no need of ophthalmic or medical knowledge. When the party fails to select the right color promptly, and appears on final examination to be defective, then he may well be allowed a further critical and medical examination, to ascertain whether he is really so defective in color-sense as to be unfit for employment. This is the course pursued on one of the best managed railroads in the United States. And their experience teaches what the limited researches of the Board had already shown, that color-blind men can be detected without the possession of any special skill or learning.

The most rigorous examination, and the most complete report, of which the Board has any knowledge, was made by a conductor who was detailed by one of the railroad companies for this purpose. This record was made instructive and interesting by his preserving, in each instance, a portion of the worsted which the employés selected as containing the colors offered as tests. The Board would not have advised the selection of a conductor, lest he should be suspected of favoritism, but in this case a result was secured which was impartial, intelligent, and full of instruction.

The circular called attention, also, to defects of vision not relating to color. This subject was not referred to the Board, but it is part of their ordinary duty to report on every important matter connected with the operation of railroads. And it is a striking fact that so little attention had been given to this subject. Most railroad companies seem to employ men for places where good sight is vital, without examination; and continue to employ men whose sight is likely to be failing from age, without testing their visual power. Probably their reasoning is that of an intelligent official, who writes: "We had one engineer who was near-sighted, and removed him at once; but he was the only man I have ever known who could not see an object six hundred feet from him that was willing to risk his life on a locomotive. There are many persons who are near-sighted, and a small percentage of the people are color-blind; but I do not believe they prefer railroading as a means of living."

But such reasoning is unsafe; and men whose vision has gradually become defective, without being conscious of it, are found employed on railroads; and it is probable that men who know their defect are willing to risk their lives, and the lives of others, rather than to lose their means of gaining a livelihood. Members of this Board, while they cannot speak of any railroad accident as resulting from color-blindness, do know cases where defective vision has led to such accidents. In one case, at least, the defect was never suspected by the person himself, until it had caused a considerable destruction of property. It was then recognized; and a new employment, not requiring vigorous eyesight, was given to the employé.

It has seemed to the Board that examination as to strength of vision was even more important than examination as to color-blindness. And this view is confirmed by Prof. Holmgren's

statement: "If the system of signals were based upon form, and all persons discharged from the service of railways, who, in consequence of an imperfection in vision, could not clearly and decidedly distinguish these signals at a distance, the proportion of such would be larger than that of the color-blind" (*Smithsonian Report for 1877*, p. 172). Of course, examination as to the two points can be made at the same time; and such was the recommendation of the circular.

This view has been further confirmed by the railroad officials who have tested their men, and who have found more defective in vigor of sight than in perception of color. In these examinations, men who failed to distinguish letters at a very short distance showed themselves far-sighted and clear-sighted in recognizing signals made at a distance of three thousand feet, and even of a mile. And these employés, technically defective, appeared to be practically well fitted for their duty. This, of course, was to have been expected from well-known facts as to vision, especially with those whose eyesight is affected by old age.

The final conclusions of the Board are: 1. That the existence of color-blindness, total and partial, is a well-established fact, and that there are men who, by reason of such defect, are unfit for positions on railroads requiring ability to distinguish color-signals. 2. That the extent of dangerous color-blindness, i.e., such color-blindness as unfits persons for railroad employment, has been greatly exaggerated, and that a very small per cent of persons are, for this reason, unfit for such employment. 3. That examinations may be properly made by persons not medical experts; and that such examinations will certainly be sufficient, if doubtful cases are referred to such experts. 4. The Board recommends that every railroad company shall have an annual examination of every employé whose duties require or may require capacity to distinguish form or color-signals, and that no one shall be so employed who has not been thus examined. The examination should refer to color-blindness and to other defects in vision. It should include all who are in any way concerned in the movement of trains.

5. The Board does not recommend any legislation on the subject. The interest of each corporation is strong enough to insure careful examination. Humanity would prevent any company from knowingly employing a person whose defective

sight might at any time cause a fatal accident. And self-interest will make railroad managers careful in avoiding even false charges that accidents have resulted from such defects.

The failure to make examinations heretofore is owing to the want of information on the subject; and, in regard to color-blindness, to the general incredulity as to its existence. Information is now generally diffused, and incredulity has ceased, thanks to the efforts of scientific men. And there is no reason to fear that due attention will not be given to the recommendation that all applicants for employment on railroads, and all persons employed, shall be examined for defects.

PETITION OF JOSEPH GRAVES, 4TH, AND OTHERS.

The resolve under which this petition was sent to the Board by the legislature is as follows:—

“*Resolved*, That the petition of Joseph Graves, 4th, and others of Marblehead, for legislation to prevent a railroad operating two branches between any two points, from making any discrimination in the rate of fare over either branch, be referred to the board of railroad commissioners, with instructions to report their conclusions to the railroad corporations so operating two branches, and to the next General Court.” [Resolves, 1879, chap. 25.]

The petition itself asks for the prohibition of “any *unjust* discrimination.” But the resolve, perhaps, gives the true purpose of the petitioners, so far as this case is concerned.

Public notice of a hearing was given in *The Boston Daily Advertiser* and *Salem Register*; and special notice was sent to the three leading petitioners and to the Eastern Railroad Company. The petitioners did not appear; and only an *ex parte* hearing of the representatives of the Eastern Railroad was possible. No other railroad corporation appeared. At the request of the Board a statement was afterward furnished, which is annexed.

The question, which the petitioners were supposed to desire to present, was whether passengers wishing to take the circuitous route between Boston and Marblehead, *via* Salem, should be allowed to ride for the same amount as if they went directly *via* Swampscott. In other words, whether the rate should be the same for twenty miles as for seventeen and two-tenths miles.

Practically the question would be, whether the road between

Salem and Marblehead should be made in great part free; for if the rates were the same, the coupon-tickets for the long route would generally be purchased by passengers using the short route; and these coupons would then be used by the purchasers or by others for the local traffic between Salem and Marblehead, without cost. It does not seem to the Board that it is unjust to charge more for a long ride than for a short one. Nor does the difference of charge between the routes appear, in the absence of testimony on the subject, to be unreasonable or unfair. The Board therefore recommends no legislation on the subject referred to us.

THOMAS RUSSELL,
ALBERT D. BRIGGS,
EDWARD W. KINSLEY,
Railroad Commissioners.

Statement of Marblehead Passenger Business.

1878 to 1879. MONTHS.	BOSTON AND MARBLEHEAD via SWAMPSCOTT.			BOSTON AND MARBLE- HEAD via SALEM.			SALEM AND MARBLEHEAD.		
	Regular Tickets.	Commutation Passages.	Season Passages.	Regular Tickets.	Commutation Passages.	Season Passages.	Regular Tickets.	Commutation Passages.	Season Passages.
October . .	2,097 $\frac{1}{2}$	2,110	3,996	-	-	-	3,561	4,118	162
November . .	1,094	1,035	3,744	-	-	-	2,834	4,522	156
December . .	922	710	3,120	-	-	312	2,626	5,418	-
January . .	731	760	2,700	-	-	432	1,993	6,174	-
February . .	694	500	2,064	-	-	432	1,950	5,096	-
March . .	938	910	2,288	-	-	364	2,154	6,146	52
April . .	1,010	860	2,340	146	-	832	2,775	7,238	208
May . .	1,112	1,195	2,484	422	285	918	3,194	6,314	216
June . .	1,525	1,235	2,650	436	365	940	2,969	6,790	100
Totals . .	10,123 $\frac{1}{2}$	9,315	25,386	1,004	650	4,230	24,056	51,816	894

(Through tickets, *via* Salem, were not on sale until April.)

A P P E N D I X .

[A.]

TERMINAL FACILITIES FOR FREIGHT OF RAILROADS IN BOSTON.

THE FOLLOWING STATEMENTS ARE FROM REPLIES TO A CIRCULAR ADDRESSED TO THE
SEVERAL ROADS.

BOSTON & ALBANY RAILROAD.

Land east of Providence Railroad crossing, used for freight purposes	15.88 acres.
Vacant land available for same	1.40 "
Total	17.28 "
Land on Back Bay, of which one-half is now used, and the other half available at any time	29.37 "
Land (including docks) at East Boston, all used	32.92 "
Land in Brighton, for cattle business, of which about 8 acres are now used for stock-yards, and the remainder is all capable of being used	25.00 "
Land at Cottage Farm, used for side tracks	4.00 "
Land at East Cambridge for yard and side tracks (partly within Grand Junction location), about one-half in use	6.50 "
Total land	115.07 "
Four freight-houses, covering an area of	143,388 sq. feet.
One hay-barn (capacity 195,600 cubic feet), covering an area of	16,952 "
One lumber-shed (capacity, 2,618,800 feet, B. M.), covering an area of	13,640 "
Grain-elevator (Chandler Street), capacity	500,000 bushels.
Milk-shed.	
All the above in Boston proper.	
At East Boston, nine freight and ware houses, covering an area of	6.13 acres.
Grain-elevator, capacity	1,000,000 bushels.
Coal-pockets, capacity	800 tons.

SIDE TRACKS.

In Boston proper	15.41 miles.
In East Boston	6.67 "
On Grand Junction Railroad	6.89 "
At Cottage Farm	4.36 "
At Brighton	1.28 "
Total	34.61 "

DOCKS AT EAST BOSTON.

Seven docks, with water frontage of 5,300 feet.
 Three of which have a water front of 2,500 feet, and 25 feet of water at ordinary low tide, and are capable of accommodating five or six of the largest steamers at the same time.
 The other four are for coal vessels and those engaged in coasting, &c.

BOSTON & LOWELL RAILROAD.

LAND.

Area of land for freight purposes, Boston	7.3 acres.
Area of land for passenger business, Boston	3.7 "
Area of land, East Cambridge, being that on which shop buildings, engine and car houses, &c., stand, and inclusive of "Flats,"	29.5 "

BUILDINGS.

One one-story brick freight	160 x 35 feet.
One one-story wood freight	160 x 35 "
One one-story brick freight	190 x 80 "
One one-story brick freight	190 x 45 "
All situate near Leverett and Brighton Streets, Boston.	
One two-story brick and wood freight	700 x 60 "
One three-story brick elevator building, having a capacity for storage of 150,000 bushels grain	340 x 60 "
One one-story brick building (occupied for supplies)	60 x 50 "
All situate on Lowell and Minot Streets.	

PASSENGER DEPOT, BOSTON.

Train-house, 122 x 537, brick and iron; 4 tracks, and room for 2 more; head house, 132 x 130, $3\frac{1}{2}$ stories, brick and stone, with two towers, 30 x 35; situate on Causeway Street.
 Passenger bridge over Charles River has an area of 2 acres; 4 tracks.
 Freight bridge over Charles River, an area of 1.8 acres; 4 tracks.

MYSTIC WHARF

Contains about 31 acres, of which 10 are available (which does not include location of Mystic Railroad) ; one-story wood freight-house, 149 x 69 ; transfer elevator (wood), which has a capacity of delivering to vessels 75 tons of grain an hour.

The depth of water at this berth is 20 feet at low water.

On the new wharf there are 10 berths, from each of which can be discharged 25 tons of coal per hour. Eight of these berths have a depth of 20 feet at low water, and 2 of about 10 feet.

There are 23 coal-pockets, having a capacity of 10,000 tons.

On the old wharf can be discharged in pockets 25,000 tons.

There are 4 other berths beside those mentioned, each of a depth of 20 feet at low water.

Track and yard facilities now for about 200 cars can be made to accommodate 500.

In the freight buildings on Lowell and Minot Streets and land connected therewith, and the Mystic Wharf property, the Nashua & Lowell Railroad Corporation are interested owners to the extent of 31 per cent of the same.

BOSTON & MAINE RAILROAD.

Land in the city of Boston, available for freight purposes (including all bridges so used), approximately	. .	702,500 sq. feet.
Land in Somerville and Cambridge immediately adjacent to that in Boston, approximately		524,400 "
Mystic Wharf, in Somerville, near Boston line	. .	479,000 "
Total		1,705,900 "

Or 39.2 acres within a circuit of one mile.

Four buildings of considerable size in Boston, used for general merchandise, and

One large building used exclusively for hay.

On Mystic Wharf, in Somerville, there are extensive coal-pockets.

BOSTON & PROVIDENCE RAILROAD.

The freight terminal facilities of this road, here in Boston, consist of one brick building, 600 feet x 125, with three (3) tracks within the same ; also one wooden building, 510 feet x 60, with one (1) track within the same. Area of both houses, 105,600 square feet, or 2.42 acres. Total area of land, 355,000 square feet, or 8.14 acres.

We have ample side tracks for the traffic we perform. We have no elevators, coal-pockets, or wharfs, in Boston. We have five wharfs and plenty of deep water in Providence. We are connected with the other roads here by the Grand Junction Railroad. We also connect with Union Freight Railroad, through the Boston & Albany and the Old Colony Railroads.

EASTERN RAILROAD.

The following list shows the area of Eastern Railroad lands now used and capable of being used for freight purposes. The amounts are approximate only.

SOMERVILLE STATION.

Land between Cambridge Street and B. & L. Railroad freight-track	5.4 acres.
--	------------

LAND AT PRISON POINT BAY.

Freight-yard adjoining State Prison	4.0 "
Mill-pond and flats (not filled) between Canal Street and B. & M. Railroad Company's land	39.0 "
Flats between Eastern Railroad and B. & M. Railroad location	4.7 "
	53.1 "

NEW FREIGHT STATION, CHARLESTOWN.

Land between Front and Lynde Streets, occupied by tracks and freight-house	4.75 "
Other land, now occupied by dwelling-houses	2.30 "

EAST BOSTON FREIGHT STATION.

Solid land	10.7 "
Pile-wharf	2.5 "
Docks	3.2 "
	76.55 "

We have very little side track in Somerville, and it is included in Boston. In what we call Charlestown and Somerville there are 47 miles of track used exclusively for freight purposes.

In East Boston there are 4.9 miles, not reckoning main line from Revere line to passenger depot; though, including that, there are 7.1 miles.

With respect to elevators, we have no facilities within the city limits; and with reference to depot buildings for general or special classes of merchandise, we have none not now in constant use in the daily transaction of the Company's business.

FITCHBURG RAILROAD.

The area of land owned by the Fitchburg Railroad Company and occupied for terminal business is as follows:—

Prison Point to draw-bridge and Navy Yard	23.8 acres.
Passenger station and yard	4.3 “
Caswell's wharf	3.5 “
Miller's River yard (exclusive of main tracks)	4. “
East of Prospect Street	8. “
Prospect Street to Watertown Junction	6. “
Owned and used	49.6 “
Owned and not improved as yet	7. “
	56.6 “
Union Market stock-yards and land	35.5 “
Constitution Wharf leased	5. “
Total area available for terminal purposes	97.1 “

Of the above, 25 acres are just out of the limits of city of Boston, and 35.5 acres in Watertown.

On Constitution Wharf there is an elevator with a storage capacity of 160,000 bushels, and freight-sheds covering an area of $1\frac{1}{4}$ acres, with store-houses having a floor area of over $\frac{3}{4}$ acre.

At Charlestown freight-yards the following buildings:—

Hay-house, area	22,000 feet.
Coal-elevator, area	6,300 “
Four freight-houses, area	134,500 “

There being in all, available for terminal purposes, 97.1 acres of land, over 6 acres of freight-houses and sheds, beside hotel and buildings at Watertown.

NEW YORK & NEW ENGLAND RAILROAD COMPANY.

The following amount of land within the city of Boston is used for freight purposes by this railroad:—

At the foot of Summer Street, improved	3.1 acres.
At the foot of Summer Street, unfilled	.92 "
At 244 Federal Street, improved	2.7 "
At 244 Federal Street, unfilled	.86 "
South of Fort Point Channel, on South Boston Flats, Commonwealth lot, including dock	24.77 "
Dock area	3.66 "
Boston & Albany purchase	46.83 "
Near First Street, improved	3.65 "
Near First Street, unfilled	2.37 "
In the round-house tract	2.93 "
About one-half of which is used for freight purposes.	
Total area within city limits, improved	32.03 "
Total area within city limits, unimproved	50.98 "
Outside of the limits of Boston, at Readville, lot bought of the New England Iron Company	
Stock-pen lot	26.6 "
North of Railroad and west of Neponset River	4.39 "
On Central Park Avenue, north of railroad	5.87 "
On Central Park Avenue, south of railroad	2.9 "
	2.9 "
Total area outside of Boston in Readville	42.66 "
Area of freight depots at foot of Summer Street . . .	40,740 sq. ft.
Area of freight depots on Commonwealth lot	35,700 "

OLD COLONY RAILROAD.

The Company has within the city limits about 11 acres used for freight purposes, — Freight-house No. 1, 592 x 80 feet; No. 2, 240 x 50 feet; and is building a third house to be 250 x 35 feet.

[B:]
Receipts of Flour in Boston during Nine Years, ending Sept. 30.

FLOUR — BARRELS.									
	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
Boston & Albany Railroad .	802,365	750,176	934,765	947,466	882,286	795,155	830,514	784,149	536,767 ¹
Boston & Lowell Railroad .	99,700	86,042	57,094	102,906	124,315	214,664	138,914	121,416	191,265
Fitchburg Railroad .	61,451	53,597	16,113	14,472	8,078	58,592	129,687	248,566	478,852 ²
Grand Junction .	88,526	98,676	274,457	239,007	215,458	273,789	364,377	447,518	600,184 ³
New York & New England R.R.	—	—	—	—	—	—	—	—	89,327
* Total by through lines from } West }	1,052,042	988,491	1,282,429	1,303,851	1,230,137	1,342,191	1,463,492	1,601,649	1,896,395
Boston & Maine Railroad .	14,784	9,098	11,419	23,187	45,783	38,942	43,935	32,092	42,631
Boston & Providence Railroad,	31,159	32,537	24,669	34,164	41,191	35,406	11,679	3,084	1,387
Eastern Railroad .	—	—	—	—	—	—	—	—	2,985
Old Colony Railroad .	6,143	5,286	3,847	1,953	1,912	2,375	841	2,685	2,162
Portland Steamer .	30,126	32,021	11,932	14,936	4,010	3,597	2,299	220	182
New York Steamer .	281,135	238,748	344,848	254,782	205,775	129,190	132,062	111,083	120,382
Baltimore Steamer .	171,175	162,052	128,275	156,018	87,113	71,108	40,496	20,047	9,364
Philadelphia Steamer .	1,891	4,105	4,907	16,981	10,210	12,348	7,069	5,053	1,045
New Orleans Steamer .	—	—	125	—	—	—	—	—	—
Sail-Vessels .	12,890	9,411	4,968	—	—	100	1,200	1,310	300
Other Sources .	—	—	—	—	—	—	—	—	—
Total from Seaboard .	569,303	493,258	534,990	502,021	395,994	293,066	239,581	175,574	180,438
Total from all Sources .	1,601,345	1,481,749	1,817,419	1,805,872	1,626,131	1,635,257	1,703,073	1,777,223	2,076,833

Increase over 1878, 299,610 barrels; over 16 per cent.

¹ 210 halves.

² 274 halves.

³ 700 halves, 1,809 sacks.

Receipts of Corn in Boston during Nine Years, ending Sept. 30.

CORN — BUSHELS.									
	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
Boston & Albany Railroad . . .	1,674,201	1,888,615	1,329,599	1,263,055	1,158,500	1,179,500	1,336,180	1,219,245	1,006,160
Boston & Lowell Railroad . . .	151,295	137,372	91,262	211,382	159,105	144,422	534,732	534,849	617,026
Fitchburg Railroad . . .	118,060	71,718	137,778	149,205	324,959	861,413	1,328,430	2,003,559	3,472,195
Grand Junction . . .	1,212,344	3,001,844	1,600,559	1,144,740	3,271,443	5,748,309	4,731,836	5,799,140	5,895,850
New York & New England . . .	—	—	—	—	—	—	—	—	23,695
Total by through lines from West . . .	3,156,800	5,119,749	3,159,198	2,768,382	4,914,007	7,933,644	7,931,178	9,556,793	11,014,926
Boston & Maine Railroad . . .	3,298	3,198	7,694	10,961	33,500	14,443	49,657	70,599	144,295
Boston & Providence Railroad, Eastern Railroad . . .	2,406	556	5,150	4,609	—	1,010	—	—	120
Old Colony Railroad . . .	75	1,032	—	—	—	—	—	—	11,300
Portland Steamer . . .	2,212	2,432	—	—	—	—	—	—	—
New York Steamer . . .	23,192	22,828	11,132	19,900	6,500	—	8,332	6,500	—
Baltimore Steamer . . .	30,314	69,354	6,934	6,678	6,182	5,536	6,086	1,492	6,400
Philadelphia Steamer . . .	24,836	57,533	29,421	8,355	3,685	18,730	6,766	8,682	—
New Orleans Steamer . . .	80	—	10,600	51,700	—	—	—	—	—
Sail-Vessels . . .	394,890	163,822	233,936	117,191	98,410	26,340	17,926	16,186	6,000
Other Sources . . .	—	—	—	—	—	—	—	—	—
Total from Seaboard . . .	481,303	320,755	304,867	219,394	148,277	66,059	88,767	103,459	168,115
Total from all Sources . . .	3,638,103	5,440,504	3,464,065	2,987,776	5,062,284	7,999,703	8,019,945	9,660,252	11,183,041

Increase over 1878, 1,522,789 bushels, or 15 $\frac{3}{4}$ per cent.

Receipts of Oats in Boston during Nine Years, ending Sept. 30.

OATS — BUSHELS.									
	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
Boston & Albany Railroad .	1,675,970	1,780,697	2,245,820	1,841,025	954,491	841,413	791,638	656,349	728,634
Boston & Lowell Railroad .	223,479	187,734	108,776	241,437	249,093	250,894	223,729	202,823	256,548
Fitchburg Railroad .	128,217	176,535	211,320	340,950	715,197	1,195,267	1,718,324	1,807,810	1,828,720
Grand Junction Railroad .	216,420	239,733	679,100	462,400	580,850	431,000	416,190	377,400	592,235
New York & New England R.R.	—	—	—	—	—	—	—	—	22,600
Total by through lines from West }	2,244,086	2,384,699	3,245,016	2,885,812	2,499,631	2,718,574	3,149,881	3,044,372	3,428,787
Boston & Maine Railroad .	1,778	2,496	3,236	10,107	185,928	7,896	12,796	53,433	23,350
Boston & Providence Railroad, Eastern Railroad .	4,152	2,100	5,150	700	—	700	—	—	—
Old Colony Railroad .	—	—	—	—	—	—	—	—	5,700
Portland Steamer .	6,537	700	—	700	—	—	—	—	—
New York Steamer .	1,028	3,653	—	—	81	—	1,440	—	—
Baltimore Steamer .	53,835	15,836	260	428	—	—	—	—	—
Philadelphia Steamer .	8,966	31,370	19,626	24,232	720	—	1,300	—	—
New Orleans Steamer .	40	—	—	—	—	—	4,566	—	—
Sail-Vessels }	103,431	—	—	—	—	—	—	—	—
Other Sources }	—	26,612	7,460	800	9,360	—	—	—	—
Total from Seaboard .	179,807	82,767	35,732	36,967	196,089	8,596	20,092	—	29,050
Total from all Sources .	2,423,893	2,467,466	3,280,748	2,922,779	2,695,720	2,727,170	3,169,973	3,097,815	3,457,787

Increase over 1878, 359,972 bushels; about 11½ per cent.

Receipts of Barley and Wheat in Boston during Nine Years, ending Sept. 30.

	BARLEY 1 — BUSHELS.			WHEAT 1 — BUSHELS.					
	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
Boston & Albany Railroad . . .	29,699	37,520	106,555	104,704	166,924	137,373	264,275	130,618	174,310
Boston & Lowell Railroad . . .	182,256	206,666	250,543	691,591	83,035	52,190	38,800	298,654	916,431
Fitchburg Railroad . . .	14,929	14,545	3,078	48,210	5,836	22,205	50,870	233,416	1,306,085
Grand Junction Railroad . . .	1,957	29,757	13,450	445,806	830,375	223,600	678,380	3,441,910	2,753,450
New York & New England R.R.	—	—	—	—	—	—	—	—	7,568
Total by through lines from } West	228,811	288,488	373,656	1,290,311	1,086,190	435,368	1,032,325	4,104,598	5,157,844
Boston & Maine Railroad . . .	747	—	1,100	5,424	1,400	—	112	400	27,448
Boston & Providence Railroad, Eastern Railroad . . .	26,393	35,393	46,314	3,642	5,362	1,012	1,614	770	1,001
Old Colony & Newport R'y . .	—	—	—	—	—	—	—	—	—
Portland Steamer . . .	9,351	11,339	—	125	—	—	—	—	—
New York Steamer . . .	8,228	14,662	1,616	3,062	200	200	150	2,452	—
Baltimore Steamer . . .	3,300	—	—	13,119	2,285	4,175	163	—	—
Philadelphia Steamer . . .	—	927	—	862	—	—	—	—	—
New Orleans Steamer . . .	—	—	—	—	—	—	—	—	—
Sail-Vessels . . .	36,540	—	—	—	—	—	—	—	—
Other Sources . . .	—	23,087	625	5,705	11,200	—	46,333	35,017	—
Total from Seaboard . . .	84,559	85,408	49,655	32,064	20,447	5,387	48,372	38,639	28,449
Total from all Sources . . .	313,370	373,896	423,311	1,322,375	1,106,637	440,755	1,080,697	4,143,237	5,186,293

Increase over 1878, 1,043,056 bushels; a little more than 25 per cent.

¹ The receipts of barley have not been reported in detail since 1873. In the table, wheat was substituted for barley in 1874. The total receipts of wheat were: in 1871, 492,429 bushels; in 1872, 402,426 bushels; in 1873, 880,747 bushels.

Receipts of Grain at Five Principal Ports. Receipts in Bushels.

	1870.	Per cent.	1871.	Per cent.	1872.	Per cent.	1873.	Per cent.	1874.	Per cent.
Montreal	12,300,000	9.7	16,200,000	10.3	17,500,000	10.2	19,900,000	11.4	17,600,000	9.2
Boston	13,100,000	10.4	15,200,000	9.6	17,900,000	10.0	17,900,000	10.3	18,000,000	9.3
New York	69,900,000	55.7	89,500,000	57.0	90,900,000	53.4	92,100,000	52.8	107,300,000	55.8
Philadelphia	15,300,000	12.3	20,000,000	12.9	24,100,000	14.2	24,900,000	14.3	24,600,000	12.8
Baltimore	13,800,000	11.9	17,400,000	10.2	20,600,000	12.2	19,600,000	11.2	24,900,000	12.9
Total	124,400,000	—	158,300,000	—	170,100,000	—	174,400,000	—	194,400,000	—

	1875.	Per cent.	1876.	Per cent.	1877.	Per cent.	1878.	Per cent.	1879.	Per cent.
Montreal	17,200,000	9.6	19,000,000	9.0	18,400,000	9.1	21,500,000	7.2	22,399,387	7
Boston	18,400,000	10.2	22,800,000	10.7	23,200,000	11.5	27,300,000	9.1	31,777,834	9.6
New York	94,100,000	52.3	97,200,000	45.8	103,300,000	51.4	155,000,000	52.5	161,748,583	49.5
Philadelphia	28,200,000	15.7	35,500,000	16.8	25,400,000	12.7	45,500,000	15.2	47,398,455	14.4
Baltimore	22,000,000	12.2	37,600,000	17.7	30,800,000	15.3	47,000,000	16.5	65,166,150	19.5
Total	183,900,000	—	212,100,000	—	201,100,000	—	296,300,000	—	328,490,409	100

Exports of Grain from Five Principal Ports, and Proportion of each—in Bushels.

	1873.	Per cent.	1874.	Per cent.	1875.	Per cent.	1876.	Per cent.	1877.	Per cent.	1878.	Per cent.	1879.	Per cent.
Montreal .	17,127,000	19.60	16,492,000	15.72	15,384,000	17.03	17,450,000	13.88	16,872,000	13.55	20,335,000	9.6	21,795,461	8.7
Boston .	2,145,000	2.45	3,186,000	3.05	3,987,000	4.42	6,043,000	4.80	6,178,000	4.79	12,941,000	6.	15,407,806	6.2
New York .	54,020,000	62.10	66,263,000	62.94	50,599,000	56.12	55,253,000	44.14	68,815,000	50.10	109,428,000	51.4	123,735,492	49.6
Philadelphia	4,807,000	5.50	6,671,000	6.35	8,846,000	9.80	22,016,000	17.50	13,595,000	10.82	29,876,000	14.	32,819,984	13.2
Baltimore .	9,049,000	10.35	12,555,000	11.96	11,407,000	12.63	24,761,000	19.68	25,579,000	20.74	39,724,000	19.00	55,601,004	22.3
Total .	84,407,000	-	104,900,000	-	90,313,000	-	125,771,000	-	124,582,000	-	212,304,000	-	249,359,747	100

Domestic Exportations, Port of Boston.

During the Year ending—	Barley.	Indian Corn.	Indian- Corn Meal.	Oats.	Wheat.	Wheat- Flour.	Animals.	Bacon and Hams.	Beef, Salted.	Beef, Fresh.	Butter.	Cheese.	Lard.	Pork.
	Bushels.	Bushels.	Barrels.	Bushels.	Bushels.	Barrels.	No.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
June 30, 1870	30	6,607	14,346	1,325	None.	176,964	650	1,732,107	1,348,671	None.	128,861	40,152	766,894	2,807,207
30, 1871	None.	160,500	18,479	3,039	81,914	220,027	468	6,391,060	1,176,555	None.	253,591	201,446	1,839,331	3,696,235
30, 1872	None.	1,448,156	56,576	2,117	134,581	155,604	509	46,241,718	2,122,252	None.	349,167	259,107	14,546,066	6,627,139
30, 1873	None.	947,584	72,422	2,384	176,865	171,504	564	89,807,565	2,348,457	None.	399,916	395,595	16,272,525	8,176,013
30, 1874	None.	246,775	85,258	6,253	851,788	208,128	663	81,846,989	2,159,106	None.	231,236	248,507	9,860,017	8,910,710
30, 1875	None.	1,074,511	66,832	8,996	636,949	238,209	549	51,848,639	1,644,377	None.	625,134	287,550	12,000,827	6,530,386
30, 1876	None.	2,721,297	80,326	23,144	391,951	222,879	560	75,684,677	1,674,122	None.	315,696	493,258	12,957,429	6,398,329
30, 1877	31,717	3,974,244	104,049	2,288	179,932	211,899	2,340	112,656,704	1,902,778	81,000	2,284,619	1,172,522	29,380,349	10,763,062
30, 1878	65,278	4,480,981	85,313	75,476	2,941,669	265,140	24,228	111,296,527	4,051,606	727,025	1,015,037	2,334,384	36,381,951	13,933,778
30, 1879	4,566	8,153,028	112,670	80,628	3,499,571	451,544	113,259	96,296,786	2,883,318	987,158	4,220,009	3,373,404	33,556,058	21,049,293
5 months, ending Nov. 30, 1879	None.	2,055,043	66,203	13,601	2,638,230	307,149	39,526	44,937,767	1,423,856	3,422,800	3,839,492	2,673,933	19,296,749	13,003,460
11 months, ending Nov. 30, 1879	100	6,482,140	120,492	17,012	3,905,933	559,555	111,991	87,673,222	2,687,086	4,365,983	6,191,522	3,885,332	37,235,031	24,978,170

[C.]

Tabular Statement of Accidents reported to the Board of Railroad Commissioners during the Year ending Sept. 30, 1879.

RAILROADS (Including the Roads operated by the Corporation named).	GENERAL STATEMENT.								PASSENGERS.				EMPLOYEES.					
	Whole No. of Per- sons Injured.	Passengers.	Employees.	At Highway Cross- ings and Statns.	Trespassers.	Children.	Adults.	Fata-ly.	Not fata-ly.	From Causes be- yond their own Control.		From their own Misconduct or Want of Care.		Train-Men.	Others.	While shak-ling Cars.	By Over- head Bridge.	
										Killed.	Injured.	Killed.	Injured.					
Boston & Albany	65	6	34	7	18	7	58	24	41	-	-	1	5	30 ²	4	11	3	-
Boston & Lowell	7	3	3	1	6	1	7	3	4	-	-	1	2	2	1	-	-	-
Boston & Maine	16	3	3	1	9	1	15	11	5	-	-	-	-	-	-	-	-	-
Boston & Providence	9	-	1	1	7	3	6	4	5	-	-	-	-	-	1	4	4	-
Eastern	24	6	7	5	6	4	20	8	16	1	1	1	5	5	2	2	3	-
Fitchburg	28	7	12	5	4	4	24	9	19	-	-	-	5	11	1	4	4	-
New York & New England	17	-	9	8	8	1	16	9	8	-	-	-	2	9	1	1	1	-
Old Colony	211 ¹	185	8	3	15	4	207	30	181	17	166	-	-	7	1	-	1	-
Ashburnham	-	-	2	-	-	-	3	1	2	-	-	-	-	1	1	-	-	-
Boston, Barre & Gardner	3	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boston, Clinton, Fitchburg & New Bedford	1	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Cheshire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Connecticut River	7	-	3	2	2	-	7	5	2	-	-	-	-	3	-	3	-	-
Hanover Branch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Housatonic	3	-	1	1	1	-	3	3	-	-	-	-	-	1	-	-	-	-
Nashua, Acton & Boston	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nashua & Lowell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Haven & Northampton	1	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-
New London Northern	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New York, New Haven & Hartford	1	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-

Norwich & Worcester	405	208	83	32	82	25	380	115	290	17	169	4	19	71	12	25	7
Providence & Worcester	7	—	1	3	3	1	6	4	3	—	—	—	—	1	—	—	—
Providence & Worcester	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Springfield & New London	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Springfield & Northeastern	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Troy & Greenfield	2	—	2	—	2	—	2	2	1	—	—	—	—	1	1	—	—
Worcester & Nashua	2	—	—	—	2	—	1	1	—	—	—	—	—	—	—	—	—
Boston, Revere Beach & Lynn	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—
Boston, Winthrop & Point Shirley	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grafton Centre	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Martha's Vineyard	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worcester & Shrewsbury	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	405	208	83	32	82	25	380	115	290	17	169	4	19	71	12	25	7

1 Of this number 189 were injured in the Wollaston accident.

² One of these was in charge of cattle on the train.

Tabular Statement of Accidents, &c. — Concluded.

RAILROADS.	EMPLOYEES — CON.					AT HIGHWAY CROSSINGS.				AT STATIONS.		TRESPASSERS.				Supposed Suicides.
	By Train Acci-	Falling from Train.	Various Causes.	Killed.	Injured.	With Gates or Flags.	Without Gates or Flags.	Killed.	Injured.	Killed.	Injured.	Walking or being on Track.	Unlawfully riding on Cars.	Killed.	Injured.	
Boston & Albany	—	14	6	10	24	3	4	4	3	—	—	12	6	12	6	2
Boston & Lowell	—	—	—	—	—	1	—	—	1	—	—	5	1	3	3	—
Boston & Maine	—	1	2	3	—	—	—	—	1	—	—	9	—	7	2	1
Boston & Providence	—	—	1	—	1	—	1	—	1	—	—	6	1	4	3	—
Eastern	—	1	2	1	6	3	1	1	3	1	1	6	—	4	2	—
Fitchburg	—	3	4	8	9	4 ²	1	4	1	—	—	4	—	2	2	1
New York & New England	—	3	1	3	6	—	—	1	2	—	—	8	—	5	3	1
Old Colony	6	—	1	3	5	—	3	—	—	—	—	12	3	9	6	—
Ashburnham	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Boston, Barre & Gardner	2	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—
Boston, Clinton, Fitchburg & New Bedford	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Cheshire	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Connecticut River	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—
Hanover Branch	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Housatonic	—	1	—	1	—	—	1	—	—	—	—	—	—	2	—	—
Nashua, Acton & Boston	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Nashua & Lowell	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New Haven & Northampton	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New London Northern	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
New York, New Haven & Hartford	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norwich & Worcester	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—

Providence & Worcester	-	-	-	-	1	2	1	1	2	-	-	2	1	3	-	-
Springfield & New London	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Springfield, Athol & Northeastern	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Troy & Greenfield	-	1	1	2	-	-	-	-	-	-	-	2	-	1	-	-
Worcester & Nashua	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Boston, Revere Beach & Lynn	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-
Boston, Winthrop & Point Shirley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grafton Centre	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Martha's Vineyard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worcester & Shrewsbury	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	8	24	19	28	55	13	17	13	17	1	1	70	12	54	28	5

¹ Explosion of locomotive, 2; thrown from train by bridge-guard, 1; thrown from hand-car, 1, — imprudence in performing their duties, &c.

² In one case, at Lincoln, the flagman was absent.

*Train Accidents reported to the Board of Railroad Commissioners
during the Year ending Sept. 30, 1879.*

COLLISIONS.	Number.	Persons killed.	Persons injured.
Passenger train with another passenger train, by reason of misplaced switch	1	-	-
Passenger train with coal cars on siding, by misplaced switch	1	-	-
Switching engine with passenger train, by misplaced switch	1	-	-
Passenger train with wrecking train, by disobedience of orders	1	1	2
Passenger train with rear of freight train stopping to switch, disobedience of rules	1	-	-
Freight train with rear of another train, by neglect to signal	2	-	-
Passenger train with an empty passenger train, by misunderstanding of telegraph	1	-	-
Passenger train with switching engine, cause not stated	1	-	-
Freight cars with side of gravel train, cause not stated, ...	1	-	-
Engine and caboose with rear of freight train, cause not stated	1	-	-
Total	11	1	2
Collisions with vehicles at highway crossings	12	3	7
DERAILMENTS.			
Passenger train, by misplaced switch	3	19	170
“ “ by broken wheel	1	-	-
“ “ by snow and ice	1	-	-
Freight or mixed trains, by broken wheel	3	-	-
“ train, by broken rail	1	-	-
“ “ by misplaced switch	1	-	-
“ or mixed trains, cause unknown	2	-	-
Locomotive, by broken spike and turning of rail	1	-	-
“ by broken tire of driving-wheel	1	-	-
Total	14	19 ¹	170 ¹

¹ All the killed and injured were at the Wollaston disaster.

Tabular Statement of Accidents reported to the Board of Railroad Commissioners during Ten Years.

	GENERAL STATEMENT.										PASSENGERS.				EMPLOYEES.	
	Whole No. of Persons Injured.	Passengers.	Employees.	At Highway Crossings and Stations.	Trespassers.	Children.	Adults.	Fatal.	Not Fatal.	From Causes beyond their own Control.	From their own Misconduct or Want of Care.	Fatal.	Not Fatal.	Train-Men.	Other Employees.	
Year ending Sept. 30, 1870 ¹	141	34	33	7	67	14	127	101	40	3	31	23	11	12	21	
“ “ 1871	280	141	53	26	60	15	265	157	123	115	26	44	97	33	20	
“ “ 1872	321	51	134	32	104	30	291	187	134	17	34	18	33	92	42	
“ “ 1873	278	50	104	25	96	9	269	164	114	1	49	17	33	75	29	
“ “ 1874	279	50	93	46	90	21	258	127	152	13	37	13	37	59	34	
“ “ 1875	242	36	84	19	103	13	229	132	110	6	30	12	24	64	20	
“ “ 1876	231	39	62	41	89	29	202	114	117	4	35	10	29	43	19	
“ “ 1877	274	33	95	37	109	26	248	134	140	9	24	7	26	65	30	
“ “ 1878	304	38	96	37	133	37	267	150	154	2	36	10	28	68	28	
“ “ 1879	405	208	83	32	82	25	380	115	290	186	23	21	188	71	12	
Total	2,755	690	837	302	933	219	2,536	1,381	1,374	356	325	175	506	582	255	
Average	275.5	69.0	83.7	30.2	93.3	21.9	253.6	138.1	137.4	35.6	32.5	17.5	50.6	58.2	25.5	

¹ The more careful system of reporting accidents did not go into operation until 1871.

Tabular Statement of Accidents, &c., during Ten Years — Concluded.

	EMPLOYEES — Con.						AT HIGHWAY CROSSING.				AT STATIONS.		TRESPASSERS.						
	Coupling or un-coupling Cars.	By Overhead Bridge.	By Train Accident.	Falling from Train.	Various Causes		Fatal.	Not Fatal.	With Gates or Flagman.	Without Gates or Flagman.	Fatal.	Not Fatal.	Fatal.	Not Fatal.	Walking or riding on Track.	Unlawfully riding on Cars.	Fatal.	Not Fatal.	Suicide.
Year ending Sept. 30, 1870, ¹	6	6	3	7	11	24	9	4	2	4	2	—	—	59	8	50	17	4	
“ “ 1871,	16	2	10	10	15	40	13	12	7	12	7	5	2	52	8	56	4	—	
“ “ 1872,	52	15	19	27	23	74	60	16	10	12	14	3	3	81	33	80	34	—	
“ “ 1873,	29	8	4	25	38	57	47	3	4	5	2	12	6	81	15	74	22	1	
“ “ 1874,	22	3	12	24	32	37	56	17	19	14	22	5	5	77	13	58	32	—	
“ “ 1875,	23	5	9	21	26	27	57	8	10	13	5	1	—	91	12	68	35	1	
“ “ 1876,	20	6	8	12	16	29	33	14	24	13	25	3	—	64	25	59	30	—	
“ “ 1877,	25	5	21	18	26	35	60	12	21	21	16	—	—	79	30	71	38	8	
“ “ 1878,	24	10	15	15	32	34	62	12	17	20	9	3	5	102	31	84	49	3	
“ “ 1879,	25	7	8	24	19	28	55	13	17	13	17	1	1	70	12	54	28	5	
Total . . .	242	67	109	183	238	385	452	111	131	127	119	33	22	756	187	654	289	22	
Average . . .	24.2	6.7	10.9	18.3	23.8	38.5	45.2	11.1	13.3	12.7	11.9	3.3	2.2	75.6	18.7	65.4	28.9	2.2	

¹ Including two at stations.

Tabular Statement of Accidents to Employees in Massachusetts.

YEAR ENDING SEPT. 30.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
Injured by coupling cars . . .	52	29	22	23	20	25	24	25
by overhead bridges . . .	15	8	3	5	6	5	10	7
by derailment of trains . . .	9	—	9	9	8	21	6	6
by collisions . . .	7	4	3	—	—	—	7	2
by falling from trains . . .	27	25	24	21	12	18	51	24
by other causes . . .	22	83	32	23	16	26	32	17
by explosion of locomotives . . .	3	—	—	3	—	—	2	2
Totals . . .	135	104	93	84	62	95	96	83

Tabular Statement of Train Accidents causing Derailment of Trains in the United States in each Month during the Year ending Sept. 30, 1879.

	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Caused by rear collisions . . .	13	16	15	16	14	11	14	10	8	18	12	25	172
Caused by butting collisions . . .	6	12	2	6	5	9	1	2	11	5	10	10	79
Caused by crossing collisions . . .	-	-	2	-	-	-	2	-	1	5	1	1	12
Unexplained . . .	-	-	-	-	-	1	-	-	-	-	-	-	1
Total . . .	19	28	19	22	19	21	17	12	20	28	23	36	264
Derailments caused by—													
Unexplained . . .	16	12	17	27	25	13	7	7	16	15	21	12	188
Broken rail . . .	1	3	1	18	8	8	2	2	3	1	1	3	51
Broken bridge . . .	4	1	-	1	2	-	2	-	1	1	3	-	15
Broken axle . . .	1	-	-	2	3	1	5	-	4	2	2	2	22
Broken truck . . .	1	-	2	3	1	2	1	1	-	1	-	1	13
Broken draw-head . . .	1	-	-	-	-	-	-	1	-	-	-	-	2
Broken down car . . .	1	-	-	-	-	-	-	-	-	-	-	-	1
Accidental obstruction . . .	1	3	-	3	2	2	-	1	2	1	2	1	18
Cattle on track . . .	3	2	-	-	2	1	1	2	4	7	3	9	34
Misplaced switch . . .	6	7	4	5	4	3	8	4	3	10	12	6	72
Malicious obstruction . . .	2	-	-	-	-	2	1	-	1	2	-	2	10
Running off end of siding . . .	2	1	-	-	-	-	-	1	-	-	-	1	5
Broken frog . . .	-	1	-	-	-	-	-	-	-	-	-	-	1
Broken wheel . . .	-	1	1	3	5	1	-	1	2	2	2	-	18

Tabular Statement of Train Accidents without Deraiment of Trains in the United States in each Month during the Year ending Sept. 30, 1879.

	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Caused by, —													
Boiler explosion	2	2	1	4	—	1	—	1	2	1	3	1	18
Car burned while running	1	3	1	—	—	1	—	2	—	—	—	—	8
Broken connecting-rod	—	1	1	6	2	—	1	—	—	1	—	1	13
Malicious obstruction	—	1	—	—	—	—	—	—	—	—	—	—	1
Cylinder head blown out	—	—	—	1	—	—	—	—	—	—	—	—	1
Broken truck	—	—	—	1	—	—	—	—	—	—	—	1	2
Broken tire	—	—	—	1	2	—	—	—	—	—	—	—	3
Broken axle	—	—	—	—	—	—	—	—	—	1	—	—	1
	3	7	3	13	4	2	1	3	2	3	3	3	47
Number of accidents in each month caused directly by defect or failure of road or equipment	15	15	11	43	27	21	15	6	14	18	22	16	223
Total number of train accidents in each month in 1878-79	61	68	63	113	88	61	50	37	64	81	79	78	843
Total number of train accidents in each month in 1877-78	82	83	66	75	67	49	46	50	56	54	75	76	779

Total number of train accidents in each month in 1876-77	103	96	88	147	56	58	69	46	49	53	98	84	947
Total number of train accidents in each month in 1875-76	88	87	84	60	91	109	56	64	52	79	78	106	954
Total number of train accidents in each month in 1874-75	81	82	74	131	211	122	60	54	61	73	114	116	1,179
Total number of train accidents in each month in 1873-74	88	76	80	108	90	88	59	89	83	64	73	89	987
Total number of train accidents in each month from Sept. 30, 1873, to Sept. 30, 1879	503	492	455	634	603	487	340	340	365	404	517	549	5,689
Deraiment of passenger trains	11	12	18	25	26	14	9	7	12	20	23	13	190
Deraiment of freight trains	28	21	23	53	39	24	23	15	30	30	30	26	342
Total	39	33	41	78	65	38	32	22	42	50	53	39	532 ²
Number of persons killed	30	8	10	9	9	6	4	3	12	11	7	4	113
Number of persons injured	154	25	43	42	52	27	19	11	29	24	42	25	493
Collision ³ between passenger trains	-	4	3	3	3	1	2	2	1	6	4	2	31
Collision between passenger and freight trains	5	11	5	10	4	5	5	1	7	8	5	12	78
Collision between freight trains	14	13	11	9	12	15	10	9	12	14	14	22	155
Number of persons killed	3	1	5	6	2	8	-	2	4	3	9	3	46
Number of persons injured	9	23	15	35	22	21	7	7	24	30	12	19	224

¹ These 47 accidents caused the death of 23 persons, and injury to 34 others.² 532 derailments, causing the death of 113 persons and injuring 449 others.³ 264 collisions, causing the death of 46 persons and injury to 224 others.

Tabular Statement of Train Accidents without Derailment of Trains, &c. — Concluded.

	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Accidents without derailment	3	7	3	13	4	2	1	3	2	3	3	3	47
Accidents to passenger trains	—	5	1	7	3	—	1	1	1	1	1	2	23
Accidents to freight trains	3	2	2	6	1	2	—	2	1	2	2	1	42
Number of persons killed	2	6	1	8	—	—	—	—	2	—	3	1	23
Number of persons injured	—	6	—	12	1	2	1	2	2	—	5	3	34
Total number of accidents each month	61	68	63	113	88	61	50	37	64	81	79	78	843
Total number of persons killed in each month	35	15	16	23	11	14	4	5	18	14	19	8	182
Total number of persons injured in each month	163	54	58	89	75	50	27	20	55	54	59	47	751
Number of accidents causing death to persons in each month	10	7	11	14	6	9	4	3	12	8	10	6	100
Number of accidents causing injury but not death	7	13	12	21	18	12	12	6	12	17	13	22	165
Number of accidents causing no injury to persons	44	48	40	78	64	40	34	28	40	56	56	50	578
Percentage of all without injury to persons	.72	.70.6	.63.5	.69	.72.7	.65.6	.68	.75.9	.62.5	.69.1	.70.9	.64.5	—

Average number of accidents per day in each month in 1878-79 . . .	1.97	2.27	2.03	3.65	3.14	1.97	1.67	1.23	2.13	2.61	2.55	2.60	-
Average number of persons killed per day in each month . . .	1.13	0.50	0.52	0.74	0.39	0.45	0.13	0.17	0.60	0.45	0.61	0.27	-
Average number of persons injured per day in each month . . .	5.26	1.80	1.87	2.90	2.68	1.61	0.90	0.67	1.83	1.74	1.90	1.57	-
Average number of casualties to persons per accident per month . . .	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of persons killed per accident . .	0.573	0.221	0.254	0.204	0.125	0.230	0.08	0.135	0.281	0.173	0.241	0.103	-
Number of persons injured per accident, . .	2.672	0.794	0.921	0.796	0.852	0.820	0.54	0.541	0.859	0.607	0.747	0.603	-

Tabular Statement of Train Accidents and the Causes of the same in the United States during Five Years.

	1873-4.	1874-5.	1875-6.	1876-7.	1877-8.	1878-9.	Total.
Total number of train accidents	987	1,179	954	947	779	843	5,689
Total number of persons killed .	201	227	219	313	200	182	1,342
Total number of persons injured .	740	1,052	939	1,230	689	751	5,401
Total number of accidents causing death to persons .	131	138	154	132	106	100	761
Total number of accidents causing injury but not death.	179	225	221	217	143	165	1,150
Total number of accidents causing no injury to persons,	677	816	608	598	530	578	3,807
Collisions, rear .	140	131	146	177	138	172	904
Collisions, head .	87	97	93	98	79	79	533
Collisions, crossing .	22	19	13	18	7	12	91
Collisions, unexplained .	30	13	11	4	1	1	60
Other accidents: —							
Causes unexplained .	227	223	184	181	176	188	1,179
Cattle on track .	43	53	48	42	35	34	255
Misplaced switch .	63	71	90	75	54	72	425
Broken axle .	20	53	36	43	28	23	203
Broken rail .	41	112	44	55	20	51	323
Falling of draw-bar .	5	4	—	—	—	—	9
Rail removed for repairs .	6	8	5	3	3	2	27
Rails removed maliciously .	3	—	—	3	3	1	10
Malicious obstruction .	24	20	16	11	17	12	100
Striking wagon at highway crossing .	1	—	—	—	—	—	1
Accidental obstruction .	21	56	35	19	32	18	181
Failure of bridge .	32	32	11	25	22	15	137
Turning over of rail .	3	—	1	—	—	—	4
Breaking of tender-wheel .	1	—	—	—	—	—	1
Cars pushed too fast on to siding .	6	2	3	5	4	—	20

Breaking of locomotive truck-wheel	1	7	12	11	5	6	1
Land-slide	9	21	22	18	11	18	50
Boiler explosion, or part of boiler	30	30	47	37	36	18	120
Spreading of rails in track	16	40	41	12	36	18	184
Wash-out of road-bed	16	27	22	18	4	18	163
Broken wheel of car	23	4	2	1	3	1	112
Unlocked switch	6	16	9	11	12	13	32
Breaking of switch-rod	10	15	9	1	12	15	70
Broken connecting-rod	7	13	9	9	12	27	8
Falling of tree on engine or train	9	36	13	28	8	15	67
Broken truck of car	13	3	13	1	8	27	125
Snow on track, or ice	1	3	1	1	2	1	1
Centre-pin dropped out	2	3	1	1	2	1	2
Starting suddenly on curve	2	10	1	2	3	1	9
Runaway train	6	1	1	2	3	1	23
Loose or broken frog	5	12	8	14	8	8	6
Falling of brake	10	3	2	3	2	2	1
Train burned while running	1	3	2	3	1	12	12
Broken driving-wheel of engine	2	1	2	3	1	1	1
Loose wheel	1	3	2	3	1	1	3
Projecting timber on car	3	4	2	5	6	21	2
Timber falling from car	4	4	2	5	6	21	2
Open draw-bridge	2	4	2	5	6	21	2
Defective switch	4	4	2	5	6	21	2
Explosion of nitro-glycerine	1	4	2	5	6	21	2
Smoke-stack knocked off	1	4	2	5	6	21	2
Fallen rock	3	8	6	1	3	1	1
Defective rail or joint	11	2	4	2	3	1	1
Overloading of car	3	2	4	2	3	1	1
Explosion of oil-tank	1	2	4	2	3	1	1
Explosion of oil-tank	1	2	4	2	3	1	1
Hand-car on track	1	6	3	1	2	2	15
Wind	1	6	3	1	2	2	7
Broken coupling	3	1	1	2	2	2	7

Tabular Statement of Train Accidents in the United States during Five Years — Concluded.

	1873-4.	1874-5.	1875-6.	1876-7.	1877-8.	1878-9.	Total.
Wood falling on track	1	—	—	—	—	—	1
Car-door falling on track	1	—	—	—	—	—	1
Too sudden stopping	1	—	—	—	—	—	1
Bending of axle	1	—	—	—	—	—	1
Flying switch	—	4	2	—	—	—	6
Broken spring	—	2	—	—	—	—	2
Broken chair-plate	—	1	—	—	—	—	1
Broken tire	—	9	1	2	1	3	16
Broken parallel-rod	—	3	—	2	2	—	3
Cylinder-head blown out	—	4	2	—	—	1	11
Loose door	—	1	—	—	—	—	1
Broken bumper	—	2	—	—	—	—	2
Broken crank-pin	—	2	—	1	—	—	3
Broken piston-rod	—	1	—	—	—	—	1
Running against fallen tree	—	1	—	—	—	—	1
Broken cross-head	—	1	—	—	—	—	1
Bad track	—	—	7	—	—	—	7
Burned cattle-guard	—	—	2	—	—	—	2
Falling rock in tunnel	—	—	1	—	—	—	1
Burned culvert	—	—	—	—	1	—	1
Narrow tread-wheel on compromise gauge (4' 9½")	—	—	—	—	—	1	1
Broken draw-head	—	—	—	—	1	—	2
Broken eccentric strap	—	—	—	—	1	2	3
Broken-down car	—	—	—	—	1	—	1
Running off end of siding	—	—	—	—	—	1	1
Brake-hose cut	—	—	—	—	—	5	5
Totals	987	1,179	954	947	779	743	5,689

[D.]

NEW CONSTRUCTION.

THE increase of mileage of main line of railroad in this State during the last year has been small, less than twelve miles in all, of completed road, as given in detail elsewhere. The extension of the Lowell & Lawrence road from South Lawrence to its new terminus in Lawrence, an expensive piece of work, though of not great length, is nearly completed, and will soon be opened to public travel. A considerable amount of work has been done upon the Massachusetts Central, between Stony Brook and Hudson, but none of it finished. It is understood that arrangements have been made by means of which funds are secured for a vigorous prosecution of the work along the whole line from Boston to Northampton, and from Amherst to a connection with the tunnel line at West Deerfield.

Work is soon to be commenced upon the extension of the New Haven & Northampton road from Northampton to a connection with the tunnel line near Bardwell's Ferry, a distance of 17.7 miles, and upon a branch from this extension from South Deerfield to Turner's Falls, 9.2 miles.

THE RIDGE HILL BRANCH OF NEW YORK & NEW ENGLAND
RAILROAD

was opened for public travel June 16, 1879.

It leaves the Woonsocket Division of New York & New England Railroad at Charles River Station, and runs in a northwest direction to Baker's Hotel at Ridge Hill, a distance of $1\frac{9}{10}$ miles. It crosses but one highway, and that by a bridge over the track. There are no bridges under the track of more than ten feet clear opening, and only one of that size. The masonry is good, and the superstructure of bridges is of timber.

It is well fenced, and for most of the distance of barbed wire, four wires high. The track is of second-hand iron taken from other portions of the line, and mostly laid in chairs of wrought and cast iron. The ties are of chestnut timber laid 2,640 to the mile. The switches are of "Tyler Patent," and frogs of cast iron, steel-faced.

The excavations and embankments are all light, and mostly of good gravel. The terminal station consists of a covered platform

and stairway leading to the plateau upon which the hotel is located. The sharpest curve upon the line is of 573 feet radius. and the steepest grade an inclination of 51.7 feet per mile. Gauge, 4' 8½".

THE EXTENSION OF MIDDLESEX CENTRAL RAILROAD.

This road extends from the terminal station of the road at Concord in a northwesterly direction to and past the new State Prison at "Concord Junction;" and to a connection with the Framingham & Lowell Railroad about a half mile beyond the prison, a distance of three miles. It crosses the Sudbury River upon a bridge of four spans of 42½ feet each, making a total length of 170 feet. The substructure of this bridge is of spruce trestles on piles well capped, ten piles to each pier; the superstructure is of wrought iron, riveted lattice girders, "deck." The trusses are four feet in depth. The floor system is good, — ties 10 feet long, 6" × 10", 18" c. to c., and guard timber 8" × 8" at ends of ties.

The Assabet River is crossed by a bridge of similar character, but in three spans of forty feet each. The piers and abutments, superstructure and flooring, are similar in all respects. It is not designed to have the substructure of either of the above bridges remain permanently, but to replace the abutments and piers with substantial masonry in due time. There are half a dozen open bridges or pass-ways of from six to fourteen feet openings, but none more than that. There are no highway crossings except at the meadow road near the Concord station, and at the cluster of highways in front of the State Prison, all of which are necessarily crossed at grade. The track is of second-hand iron, taken from various points of the main line of Boston & Lowell Railroad, and mostly laid with "Trimble" splicings. The ties are of cedar brought from the Dismal Swamp in Virginia, and laid 2,640 to the mile. The switches are of the "Tyler Patent." and the frogs of cast iron. The grading is generally light in character. The fencing is mostly of posts and boards and of good quality. The sharpest curve has a radius of 1,146 feet, and the steepest grade has an inclination of 35.2 feet per mile. The terminal station near the State Prison is a combination of station and hotel, and very convenient. Gauge, 4' 8½".

THE SPENCER RAILROAD.

This road extends from the South Spencer station of the Boston & Albany Railroad in a northeasterly direction, to the centre of the town of Spencer a distance of two miles. The grades are undulating, and the grading generally light, with excavations and embankments of good width. The rails are of iron, made at St. Albans, Vt., in

lengths of 30 feet, $3\frac{3}{4}$ " base, and 4" high, and weighing 58 pounds per yard. The splicings are "side-fish," with four bolts to each joint. The switches are of "Tyler Patent," and the frogs of cast iron, steel-faced. The fencing is mostly of posts and boards. There are no bridges upon the line. There are four highway crossings, and all at grade,—three of them in the village of Spencer, and one near the junction with Boston & Albany Railroad. The sharpest curve has a radius of 604 feet, and the steepest grade an inclination of 110.88 feet per mile. The terminal station buildings at Spencer are of wood, convenient and good. This road is leased and operated by the Boston & Albany Railroad. Gauge, $4' 8\frac{1}{2}"$.

THE HOLYOKE BRANCH OF HOLYOKE & WESTFIELD RAILROAD.

This branch leaves the main line in the south part of the city of Holyoke, and at the distance of half a mile strikes the bank of Connecticut River, and follows it for two miles to a point, a short distance below the Connecticut River dam of the Holyoke Water Power Company, passing in its course under the north span of the Willimansett Bridge of the Connecticut River Railroad, and under the south span of the highway bridge, between Holyoke and South Hadley.

It is an expensive piece of work, thoroughly built, crossing Main Street by an iron-plate girder bridge of 40 feet span, the overfall of the third level canal by an iron truss-bridge of 140 feet span, and the overfall of the second level canal by an iron truss-bridge of 85 feet span. The total length of branch is 2.37 miles. The steepest grade has an inclination of 121 feet per mile, and the sharpest curve is upon a radius of 288 feet.

The ties are laid two and a half feet apart centre to centre, or 2,112 per mile. The rails were furnished by the New Haven & Northampton Railroad, taken from its main track, and replaced with steel. The cost of this branch to date has been \$64,024.72.

EXAMINATION OF RAILROADS.

As in previous years, the Board has made an examination of all the railroads in the State, upon special trains provided by the corporations for that purpose, and accompanied, in all cases, by some of the officers of the road under inspection.

Every bridge and passenger station has been examined; and wherever any changes, additions, or repairs appeared to be necessary for the safety of the travelling public, or of the employés of the road, the corporation was notified of it.

None of the roads appeared to be in poorer condition than at the last examination, and most of them had been much improved in nearly every respect.

The renewal of ties or sleepers in the track is a constant source of expense, both for materials and labor, besides causing a disturbance of the road-bed, and greatly increasing the dust nuisance in dry seasons. It seems reasonable to expect that some method will be devised by which the rapid decay of ties may be prevented, and at the same time the solidity of the timber increased, so as, in a great measure, to prevent the crushing of the ties under the rails.

Thus far, the method which has given the best results in this direction, appears to be "creosoting;" and in England, where this system has received the most attention, ties are shown in good condition that have been in constant service for a period of from twelve to twenty years. It is well known, that in this State a tie that has done service for half of that period is the exception rather than the rule. As the average price of ties of good size and quality, in this State, ranges from thirty-five to fifty cents each, and more than twenty-five hundred of them are required for a mile of single track, the importance of increasing their durability, and doubling or trebling their average time of life, becomes one of great importance, and especially so when it is remembered that it costs nearly, if not quite, as much for labor to replace a condemned tie with a new one as the cost of the new tie. The Eastern Railroad is now erecting "creosoting" works for its own use at Portsmouth, N.H., and the Old Colony is testing this method at its works at Somerset.

The various railroads of this State reporting to this Board laid over a million and a quarter of ties during the last year, at a cost for timber alone of upwards of \$460,000. If, as is claimed, it costs as much for labor to replace a condemned tie with a new one, as for the timber, nearly a million of dollars were expended during the last year by the roads reporting to this Board, for renewals of ties alone.

The cost of steel rails (16,425 tons) laid during the year was \$490,000, and for iron rails (5,312 tons) \$82,000, in addition to the estimated value of old rails taken up.

In the last Annual Report (p. 87) the Commissioners used the following language: "Another matter of great and increasing importance, and to which attention has been called in previous reports of this Board, is a better system of flooring and guard-rails upon bridges. Under the present system of railroad management, where every railroad has to haul the cars of every other railroad, and oftentimes without a proper opportunity to examine the condition of the rolling-stock when it is received, it is of prime importance that every bridge

should have a sufficient number of ties to prevent the train from breaking through the flooring in case of derailment by reason of broken wheels, axles, trucks, &c., and also to have guard-rails to keep trains in line when derailed, and prevent the cars from turning over, or striking the sides of the bridge in case of accident. Some of the roads of this State have made great improvements in the floor system of their bridges in this respect; but too many of them do not seem to appreciate the importance of the subject, though scarcely a month passes without disastrous results occurring in some portion of the country from a neglect to provide against a danger to which every road is liable. While a large majority of bridges are strong enough to carry the loads which legitimately come upon them, yet probably but a small portion of them are strong enough to withstand the impact of a rapidly moving derailed train."

The experience and statistics of the past year have given strong emphasis to the above suggestions. Of the "train accidents" reported by "The Railroad Gazette," to which reference has been made elsewhere, fifteen accidents are classified as "Broken Bridge Derailments," some of the most serious of which, it is stated, were caused by trains running upon them with cars in a derailed condition. Several of the bridges destroyed were iron structures, recently built by men of large experience and national reputation as builders of first-class work. With three exceptions, all of the above casualties happened to freight trains. One of the destroyed bridges is described as "a perfect structure, of iron, put up scarcely a year ago, which would have sustained a vastly greater weight under ordinary circumstances. The accident seems to have resulted from the derailment of a car caused by the fall of a truck-bar. The train had broken in two before reaching the bridge, and the engineer was running at a high speed, to keep out of the way of the rear section. The company will place guard-rails as a precautionary measure hereafter." Further comment would seem to be unnecessary. Several of the roads of this State, notably the Fitchburg, Old Colony, Nashua & Worcester, and Boston, Barre & Gardner, have placed substantial guard-rails upon all of their bridges "as a precautionary measure," and several others have commenced doing so; and it is confidently hoped that all of the other roads will soon do the same. With a single exception—the Boston & Albany—none of the railroads of this State have suffered by "wash-outs," occasioned by the failure of dams or reservoirs; yet several of them, in common with roads in the adjoining States, suffered to a considerable extent from the freshet of Dec. 10, 1878, which extended over the New England States and New York. So far as known, the reported casualties were not attended with loss of life.

THE BOSTON & ALBANY.

The general condition of this road is very good, and the managers seem determined to place and keep it in the front rank of the roads of the State. The track and road-bed have never been in as good condition as at present.

The road was badly injured, and trains of all kinds seriously delayed by the "wash-out" at Huntington, caused by the failure of several dams upon the east branch of Westfield River in December last.

One span of iron bridge ninety feet in length, and a long embankment of earth, were carried away, involving a damage of upwards of twenty thousand dollars, besides the serious interruption of business. Upwards of eighteen miles of new side tracks have been constructed, and over 1,200 tons of steel rails and 238,000 ties have been laid during the year.

A first-class passenger station, with all modern improvements, has been built at Westfield; also one of less pretensions at Richmond, and a new freight house at Huntington. New engines and boilers of larger power have been substituted for those previously in use at the East Boston Elevator, and the construction of two large freight houses has been commenced at Boston, to provide additional facilities for transacting freighting business, rendered necessary by the proposed removal of the passenger station from the easterly to the westerly side of Kneeland Street. "Hall's Automatic Electric Signals" are now in use at all principal stations between Boston & Worcester.

THE BOSTON & LOWELL.

Aside from the usual repairs of the road, improvements have been made in the yard at Boston, by the removal of the buildings occupied by the several express companies from the east to the west side of the main train house, giving space for four new tracks upon which to make up trains; also in the freight yards where additional tracks have been laid; and a refrigerator building, with Tiffany's Patent, for the preservation of perishable products, has been constructed. Two long sidings for freight purposes have been constructed upon the Mystic Branch. New sidings at West Medford and at North Billerica have also been put in. The new iron bridge for five tracks, over Gorham Street at Lowell, has been completed. Two iron bridges across the canal, in Lowell, have been constructed for freight purposes.

The pile trestle bridge, over Concord River, on the Lowell & Lawrence road, has been rebuilt in a substantial manner and supplied with guard-rails. The rock cutting at the ledge, and removal of the old arch bridge, near the Middlesex-street station, in Lowell, has been completed.

The tracks of the Middlesex Central road have been extended from Concord station to a connection with the Framingham & Lowell road, at a point a short distance northerly of the new State Prison at Concord Junction. The extension of the road from South Lawrence to Lawrence is nearly completed. That will give this road an independent and a more central terminus in Lawrence than it has heretofore reached.

THE BOSTON & PROVIDENCE.

This road was never in better condition throughout its whole length. The last wooden bridge of any importance, upon the main line, that over Ten-mile River at Dodgeville, is now being replaced with substantial arches of brick masonry, and when it is completed there will be no bridge of more than twenty feet span, of perishable material left, except upon the branch roads.

THE OLD COLONY.

This company, including its recent acquisition of the Boston, Clinton, Fitchburg & New Bedford Road and its branches, now controls 454 miles of main line, or one-fourth of the whole railroad mileage of the State, of which 15.3 miles is of double and 438.7 miles is of single track.

It was never in as good condition as at present; and among the improvements made the past year the more important are the placing of substantial guard-rails upon all the bridges of its old property, and upon a portion of those upon the Boston, Clinton, Fitchburg & New Bedford; the laying of 2,360 tons of steel rails, and about 194,000 new ties in the tracks; the construction of 12,750 feet of side tracks; a new iron draw-bridge at Tiverton; a new cotton-house at Fall River; a new coal-shed at Taunton, and new freight stations at East and West Bridgewater and at North Scituate. The passenger stations at East and West Bridgewater, North Scituate and North Weymouth, have been rebuilt and enlarged.

This company is now trying the method of "creosoting" ties at its works at Somerset, which were erected some years since for creosoting the piles and other timber of Somerset Bridge.

THE EASTERN.

The managers of this property have continued to improve it, and the amount expended during the past year has been about the same as in the preceding year. Sixteen hundred tons of steel rails have been laid, and upwards of 85,000 new ties. There are now 141 miles of steel track, leaving only about twenty miles of iron track between

Boston and Portland. A new passenger station is now being built at Everett; and the passenger house formerly standing at Highland Station has been moved to Revere, and put in first-class order. The Lynn freight house has been enlarged; and a new passenger station has been built at Pride's Crossing.

This company is now erecting works for "creosoting" ties and other timber at Portsmouth, N.H.

THE BOSTON, REVERE BEACH & LYNN (*Three Feet Gauge*).

Various improvements have been made upon this road. New passenger stations have been built at "Beachmont," "Pavilion," "Ocean House," and at Lynn; additional sidings at "Pavilion," "Wood Island," Winthrop Junction and Lynn.

The pile bridging at various points has been filled with solid embankment, and track raised and ballasted at others. One hundred tons of steel rails (fifty pounds per yard) have been laid during the year.

THE WORCESTER & NASHUA.

The general condition of this road is better than ever before in all its features of road-bed, track, bridges and stations. A radical improvement has been made in the station buildings and tracks at Pepperell, involving an entire change of the whole arrangement at that place, and one that cannot fail to be appreciated by all who frequent that place. Improvements have also been made at Clinton in passenger house, covered platforms, &c.

THE SPRINGFIELD & NORTHEASTERN.

This road is in better condition than last year, though not as good as it should be. About fifteen thousand ties and two hundred and six tons of steel and forty tons of iron rails have been laid, and by means of pile-bents of trestle-work placed under two of the bridges, and a new pile-bridge built around a third, they are considered as being in a safe condition so long as no derailment of trains takes place upon or near them, and while trains are run at moderate speed.

THE CONNECTICUT RIVER.

This company has, in addition to keeping its road in good order throughout, made a large addition to its freight house at Holyoke, and enlarged the platforms of the passenger house, and laid four-fifths of a mile of new side tracks at the same point. A double-track, wrought-iron bridge has replaced the single-track wooden bridge at North Hatfield, and a fine stone arch culvert of fifteen feet span has been

built in place of one of ten feet span washed out by the freshet of Dec. 10, 1878, at Hatfield. Fourteen miles of main track have been raised from one to two feet and ballasted with good gravel. A "Hall's Automatic Highway Grade Crossing Signal," has been erected at Holyoke to guard an obscure crossing at that point, which gives satisfactory results.

THE HOUSATONIC.

The condition of this road is very good.

Parapet walls have been built upon nineteen bridges to protect the ends of superstructure from earth; and several miles of track have been raised and ballasted with gravel.

THE FITCHBURG.

This road has continued to make important and extensive improvements at various points upon its line, among which may be mentioned the following: removal and relocation of sundry buildings and construction of new sheds and additional tracks on Constitution Wharf in Boston; new tracks to connect the Union Freight Railway with the tracks of the Boston freight yard; the construction of about one acre of pile-wharf in Charlestown, and an additional hay-house at same place. New side tracks have been constructed in Charlestown, Somerville, Cambridge, Waltham, Leominster, Fitchburg, Gardner, Templeton, Athol, Orange, Irving and Lake Pleasant, of an aggregate length of six and a half miles.

The road-bed between Littleton and Fitchburg, and between Ashburnham and Gardner, has been improved by ballasting and reducing and making the grades more uniform. The pile-bridges over the Assabet River, at Concord Junction, and at Rockbottom, have been rebuilt; and the long high bridge at Greenville has been strengthened by additions thereto. The truss-bridge of timber over street at Leominster has been replaced by a substantial wrought-iron truss-bridge, and iron-plate girders have been substituted for timber girders over highway east of Leominster. Real estate has been purchased for station purposes at Westminster, Gardner and Deerfield.

Fifteen hundred and fifty tons of steel, and about eleven hundred tons of iron, and upwards of seventy-five thousand ties have been laid in the tracks during the last year. This company is now making a trial of the Union Electric Signal Company's system of signals, and thus far with satisfactory results.

THE PROVIDENCE & WORCESTER.

This road has been kept fully up to its previous good condition, and improved at several points. The improved floor and guard-rail system

for bridges has been adopted, and already introduced at several points, and will be generally during the coming year. At Millville additional land has been purchased, a new freight house built, and two thousand feet of new sidings, turnouts, and connecting tracks laid.

At Uxbridge a new turnout, three thousand feet in length, has been constructed; and at Worcester a new "Sellers" iron turn-table has been put in. Considerable new work has also been built in Rhode Island.

NEW YORK & NEW ENGLAND.

This company has done more than the usual amount of work in keeping its road in good order, and has made special improvements at various points along the line. Upwards of 1,600 tons of new iron rails, and 2,316 tons of steel rail, and 110,000 new ties, have been laid during the past year.

An extension of the Boston yard over Drake's wharf has been made. A new engine-house, with stalls for nineteen locomotives and a sixty-foot Sellers turn-table, has been built at South Boston. The work of filling the South Boston Flats has progressed by an expenditure of \$15,000.

New machinery has been added to the machine-shop at Readville. A new arch culvert at City Mills, to replace the one destroyed by failure of reservoir in Wrentham in 1874, is well under way, and the embankment at that point will be completed next spring. A new freight house has been built on South Boston Flats, which, with paving, &c., has cost \$30,000. Side tracks have been added at South Boston, Readville, Tilton's, Norfolk and Douglas stations. A new iron-girder bridge for three tracks and 53 feet span, to replace a timber lattice truss, has been built at Readville. A new Howe truss-bridge of 111 feet span has been built at Blackstone, and one of 135 feet span at Millville.

Highway bridges at Third and Fourth Streets in South Boston, and over tracks at Islington, have been raised to 18 feet clear height. Real estate has been purchased at various points, costing upwards of \$80,000. The Ridge Hill branch has been built at an expense of \$16,000.

NEW HAVEN & NORTHAMPTON.

This road was never in as good condition as at present; and radical improvements have been made in the grades of the road in the vicinity of Northampton, to place the grades above the level of the highest freshets which, in previous years, have given the company great trouble.

The new freight branch at Holyoke has been completed.

Three hundred and fifty tons of steel rails and upwards of fifty thousand new ties have been laid during the past year. This makes about sixty-eight out of the seventy-six miles of the road between New Haven and Northampton that are now laid with steel rails, and the balance is to be so laid during the coming season.

An extension of this road from Northampton to a connection with the Troy & Greenfield, at a point near Bardwell's Ferry, a distance of 17.7 miles, with a branch from South Deerfield to Turner's Falls, a distance of 9.2 miles, is proposed to be completed during the coming year, and will, no doubt, add largely to the traffic of the main line.

BOSTON, WINTHROP & POINT SHIRLEY.

It was predicted by the Commissioners at the time this road was built, in 1877 (see Ninth Annual Report, page 157), that the novel and peculiar kind of track adopted for the most part in its construction, was not likely to prove a success; and the results have justified the opinion, inasmuch as the track has, even under the light traffic upon that road, already become weak in many places, and the whole of the "novel" portion of the superstructure will soon have to be replaced by that of a more substantial and durable character. The change has already been commenced, and trains are run at a moderate speed, and with a due regard to the safety of those travelling in them.

TABULATED STATEMENT

OF

RAILWAY AND RAILROAD

RETURNS.

CONTENTS OF TABLES.

STREET RAILWAYS.

CAPITAL STOCK, DEBT, &C.

	Column	Page
Capital Stock paid in	1	120
Number of Stockholders	2	120
Funded Debt	3	120
Unfunded Debt	4	120
Gross Debt	5	120
Cash and Cash Assets	6	120
Net Debt	7	120

COST OF ROAD, EQUIPMENT, &C.

Road	8	122
Equipment	9	122
Land and Buildings	10	122
Other Property	11	122
Total Permanent investment	12	122
Total Property and Assets	13	122

PROPERTY ACCOUNTS: ADDITIONS AND REDUCTIONS.

Construction	14	124
Equipment	15	124
Other Property	16	124
Total Additions	17	124
Reductions	18	124
Net Additions	19	124

REVENUE FOR THE YEAR.

Passengers	20	126
Rents	21	126
Mails and Express	22	126
Sales of Manure	23	126
Other Sources	24	126
Total Income	25	126

EXPENSES FOR THE YEAR.

	Column	Page
Repairs of Road-bed and Track	26	128
Repairs of Equipment	27	128
Repairs of Buildings	28	128
Renewal of Horses	29	128
Salaries, &c., General Office	30	128
Wages, &c., Employés	31	128
Provender	32	128
Taxes	33	130
Rents	34	130
Insurance	35	130
Injuries to Persons and Property	36	130
Other Expenses	37	130
Total Expenses	38	130
Percentage Expenses to Income	39	130

NET INCOME, DIVIDENDS, &c.

Net Income	40	132
Interest accrued	41	132
Dividends declared	42	132
Per cent	43	132
Balance for the Year	44	132
Surplus last Year	45	132
Surplus Sept. 30, 1879	46	132

EQUIPMENT.

Cars	47	134
Other Vehicles	48	134
Horses	49	134
Harnesses (pairs of)	50	134

LENGTH OF ROAD.

Main Line	51	134
Switches and Sidings	52	134
Total Length of Track	53	134

MILEAGE, &c.

Number of Miles run	54	136
Number of Passengers carried	55	136
Number of Round Trips	56	136
Average Number of Passengers per Round Trip	57	136
Number of Persons employed	58	136

ACCIDENTS.

Fatal	59	136
Injured	60	136

PER MILE OF ROAD OWNED.

	Column	Page
Capital Stock paid in	61	138
Net Debt	62	138
Cost of Construction	63	138

PER MILE OF ROAD OPERATED.

Cost of Equipment	64	138
Repairs of Road-bed and Track	65	138
Keeping Stock of Horses good	66	140
Repairs	67	140

GROSS INCOME.

Per Mile of Single Track operated	68	140
Per Round Trip	69	140
Per Mile run	70	140
Per Passenger carried	71	140

EXPENSES.

Per Mile of Single Track operated	72	142
Per Round Trip	73	142
Per Mile run	74	142
Per Passenger carried	75	142

NET INCOME.

Per Mile of Single Track operated	76	142
Per Round Trip	77	142
Per Mile run	78	142
Per Passenger carried	79	142

STEAM RAILROADS.

LENGTH OF ROAD AND BRANCHES.

Main Line	1	146
Main Line in Massachusetts	2	146
Double Track in Massachusetts	3	146
Double Track out of Massachusetts	4	146
Sidings in Massachusetts	5	146
Sidings out of Massachusetts	6	146
Total Length computed as Single Track	7	146

REPORTS.

	Column	Page
Ashburnham	16	158
Attleborough Branch	38	176
Berkshire	39	176
Boston & Albany	8	154
Boston, Barre & Gardner	17	158
Boston, Clinton, Fitchburg & New Bedford	18	162
Boston & Lowell	10	154
Boston & Maine	11	154
Boston & Mystic Valley	71	182
Boston & Providence	13	158
Boston, Revere Beach & Lynn	33	174
Boston, Winthrop & Point Shirley	34	174
Cheshire	19	162
Connecticut River	20	162
Danvers	61	180
Dorchester & Milton Branch	62	180
Eastern	12	154
Fall River	21	162
Fall River, Warren & Providence	22	162
Fitchburg	9	154
Framingham & Lowell	40	176
Grafton Centre	35	174
Hanover Branch	23	166
Holyoke & Westfield	41	176
Hopkinton	42	176
Horn Pond Branch	63	181
Housatonic of Connecticut*.	24	166
Lancaster	64	181
Lee & Hudson	65	181
Lee & New Haven	68	182
Lowell & Andover	43	177
Martha's Vineyard	36	174
Massachusetts Central	66	181
Middlesex Central	44	177
Milford & Woonsocket	45	177
Monadnock	46	177
Nashua, Acton & Boston	47	177
Nashua & Lowell	25	166
Newburyport	67	181
Newburyport City	48	178
New Haven & Northampton	26	166
New London Northern	27	166
New York & New England	14	158
New York, New Haven & Hartford	28	170
North Brookfield	49	178

* Operating the Berkshire, Stockbridge & Pittsfield, and West Stockbridge Railroads.

REPORTS — *Continued.*

	Column	Page
Norwich & Worcester	29	170
Old Colony	15	158
Ocean Terminal	69	182
Pittsfield & North Adams	50	178
Providence & Worcester	30	170
Rhode Island & Massachusetts	51	178
Spencer	70	182
Springfield & North-Eastern	31	170
Springfield & New London	52	178
Stockbridge & Pittsfield	53	179
Stony Brook	54	179
Troy & Greenfield *	60	180
Union Freight	59	180
Vermont & Massachusetts	55	179
Ware River	56	179
West Amesbury	57	179
West Stockbridge	58	180
Worcester & Nashua	32	170
Worcester & Shrewsbury	37	174

TABULATED COMPARATIVE RESULTS.

STOCK, DEBT, AND COST PER MILE OF ROAD OWNED.

Stock paid in	72	190
Net Debt	73	190
Total Stock and Net Debt	74	190
Cost of Construction	75	190
Cost of Equipment	76	190
Cost of Total Permanent Investments	77	190

EARNINGS AND EXPENSES PER MILE OF ROAD OPERATED.

Total Transportation Earnings	78	191
Total Transportation Expenses	79	191
Net Earnings	80	191

EARNINGS AND EXPENSES PER TOTAL REVENUE TRAIN MILE.

Total Transportation Earnings	81	191
Total Transportation Expenses	82	191
Net Earnings	83	191

EXPENSES PER TOTAL TRAIN MILE.

Repairs of Road	84	192
Repairs of Bridges	85	192
New Rails	86	192

* Makes special report to the Legislature.

EXPENSES PER TOTAL TRAIN MILE—*Continued.*

	Column	Page
Repairs of Locomotives	87	192
Fuel	88	192
Oil and Waste	89	192
Repairs of Passenger, Baggage and Mail Cars . .	90	192
Repairs of Freight Cars	91	192

REPAIRS.

Per Locomotive	92	193
Per Passenger, Baggage, and Mail Car	93	193
Per Freight Car	94	193

AVERAGES, &C.

Passengers : Average Distance travelled per Passenger	95	193
Freight : Average Distance carried per Ton . .	96	193
Passengers carried per Train Mile	97	193
Tons Freight carried per Train Mile	98	193

EARNINGS, EXPENSES AND NET EARNINGS.

Total Earnings—Passenger Department . .	99	194
Total Expenses—Passenger Department . .	100	194
Net Earnings—Passenger Department	101	194
Total Earnings—Freight Department	102	194
Total Expenses—Freight Department	103	194
Net Earnings—Freight Department	104	194

ABSTRACT OF STREET RAILWAY RETURNS.

	STREET RAILWAYS.	CAPITAL STOCK, DEBT, ETC.					
		1. — Capital Stock paid in.	2. — Number of Stockholders.	3. — Funded Debt.	4. — Unfunded Debt.	5. — Gross Debt.	6. — Cash and Cash Assets.
							7. — Net Debt.
1	Albany Street Freight . . .	\$50,000 00	9	—	—	—	\$1,576 06
2	Arlington . . .	13,600 00	23	—	—	—	41 54
3	Boston & Chelsea . . .	110,000 00	79	—	—	—	4,481 55
4	Cambridge . . .	893,000 00	609	\$150,000 00	—	\$150,000 00	150,000 00
5	Haverhill & Groveland . . .	24,000 00	22	—	—	—	566 24
6	Highland . . .	500,000 00	226	300,000 00	\$27,687 15	327,687 15	28,213 21
7	Lowell . . .	93,100 00	114	—	7,000 00	7,000 00	3,112 37
8	Lynn & Boston . . .	200,000 00	100	50,000 00	24,780 61	74,780 61	27,316 32
9	Lynn City . . .	19,900 00	57	—	7,720 32	7,720 32	2,679 12
10	Malden & Melrose . . .	165,500 00	51	15,000 00	—	15,000 00	—
11	Medford & Charlestown . . .	21,000 00	25	—	21,544 74	21,544 74	194 01
12	Merrimac Valley . . .	50,000 00	81	—	—	—	15,088 94
13	Metropolitan . . .	1,500,000 00	861	1,027,442 12	252,698 63	1,280,140 75	31,921 03
14	Middlesex . . .	400,000 00	268	510,000 00	91,256 58	601,256 58	304,599 76
15	Naumkeag . . .	70,000 00	20	85,900 00	32,355 57	118,255 57	23,132 17
16	New Bedford & Fairhaven . . .	54,100 00	73	16,000 00	2,939 56	18,939 56	6,186 15
17	Newburyport & Amesbury . . .	38,250 00	32	24,000 00	—	24,000 00	239 75
							\$299,473 94
							3,887 63
							47,464 29
							5,041 20
							15,000 00
							21,350 73
							—
							1,248,219 72
							296,656 82
							95,123 40
							12,753 41
							23,760 25

18	Northampton	.	.	.	\$50,000 00	18	—	\$3,004 79	\$3,004 79	\$3 30	\$3,001 49
19	North Woburn	.	.	.	25,000 00	32	\$4,000 00	—	4,000 00	220 82	3,779 18
20	Salem . .	.	.	.	150,000 00	63	35,900 00	1,800 00	37,700 00	427 43	37,272 57
21	Somerville .	.	.	.	113,000 00	55	—	—	—	—	—
22	South Boston	.	.	.	500,000 00	227	83,500 00	97,217 79	180,717 79	26,157 98	154,559 81
23	Springfield .	.	.	.	100,000 00	24	—	6,151 45	6,151 45	24,810 65	—
24	Stoneham .	.	.	.	33,000 00	15	—	3,000 00	3,000 00	843 05	2,156 95
25	Taunton .	.	.	.	40,000 00	113	—	6,000 00	6,000 00	5,045 19	954 81
26	Union . .	.	.	.	374,300 00	100	—	214,617 59	214,617 59	75,566 52	139,051 07
27	Waltham & Newton	.	.	.	30,000 00	89	—	18,615 57	18,615 57	593 95	18,021 62
28	Winnisimmet .	.	.	.	50,000 00	57	—	1,665 00	1,665 00	1,824 85	—
29	Worcester .	.	.	.	40,000 00	8	53,000 00	19,521 29	72,521 29	2,251 76	70,269 53
	Total	.	.	.	\$5,707,750 00	3,451	\$2,354,742 12	\$839,576 64	\$3,194,318 76	\$737,093 72	\$2,497,798 42

ABSTRACT OF STREET RAILWAY RETURNS — CONTINUED.

STREET RAILWAYS.		COST OF ROAD, EQUIPMENT, ETC.					
		8. — Road.	9. — Equipment.	10. — Land and Buildings.	11. — Other Property.	12. — Total Permanent Investments.	13. — Total Property and Assets.
1	Albany Street Freight . . .	\$49,066 29	—	—	—	\$49,066 29	\$50,642 35
2	Arlington . . .	13,558 46	—	—	—	13,558 46	13,600 00
3	Boston & Chelsea . . .	110,000 00	—	—	—	110,000 00	114,481 55
4	Cambridge . . .	893,000 00	—	—	—	893,000 00	1,043,000 00
5	Haverhill & Groveland . . .	15,200 00	\$6,700 00	\$2,700 00	—	24,600 00	25,166 24
6	Highland . . .	300,729 51	274,520 68	250,189 02	—	825,439 21	853,652 42
7	Lowell . . .	64,826 97	30,011 96	8,372 82	—	103,211 75	106,324 12
8	Lynn & Boston . . .	154,605 41	61,725 00	32,252 80	—	248,583 21	275,899 53
9	Lynn City . . .	19,079 65	9,987 93	3,564 95	—	32,632 53	35,311 65
10	Malden & Melrose . . .	60,246 48	—	—	—	60,246 48	60,246 48
11	Medford & Charlestown . . .	49,595 07	—	—	—	49,595 07	49,789 08
12	Merrimac Valley . . .	21,000 00	10,100 00	11,000 00	—	42,100 00	57,188 94
13	Metropolitan . . .	1,324,598 59	686,751 56	895,779 22	\$200,000 00	3,107,129 37	3,139,050 40
14	Middlesex . . .	433,867 23	151,870 61	149,718 93	—	735,456 77	1,040,056 53
15	Naumkeag . . .	6,332 20	42,581 68	2,300 00	139,175 38	190,389 26	213,521 43
16	New Bedford & Fairhaven . . .	55,921 94	13,764 41	12,736 33	—	82,422 68	88,608 83
17	Newburyport & Amesbury . . .	60,761 43	—	—	1,100 00	61,861 43	62,101 18

18	Northampton	.	.	.	\$46,150 00	\$1,100 00	-	-	\$47,250 00	\$47,253 30
19	North Woburn	.	.	.	25,550 00	1,950 00	\$1,500 00	-	29,000 00	29,220 82
20	Salem	.	.	.	203,569 52	-	5,283 84	-	208,853 36	209,280 79
21	Somerville	.	.	.	113,000 00	-	-	-	113,000 00	113,000 00
22	South Boston	.	.	.	263,314 14	223,194 32	193,060 24	\$10,000 00	689,568 70	715,726 68
23	Springfield	.	.	.	62,155 71	13,494 88	23,583 65	-	99,234 24	124,044 89
24	Stoneham	.	.	.	33,600 00	5,283 98	3,291 12	1,500 00	43,675 10	44,518 15
25	Taunton	.	.	.	24,000 00	11,990 00	10,000 00	-	45,990 00	51,035 19
26	Union	.	.	.	-	190,604 20	355,986 81	-	546,591 01	622,157 53
27	Waltham & Newton	.	.	.	37,493 41	5,789 62	3,448 88	-	46,731 91	47,325 86
28	Winnisimmet	.	.	.	52,500 00	-	-	-	52,500 00	54,324 85
29	Worcester	.	.	.	61,283 61	22,457 62	25,000 00	-	108,741 23	110,992 99
	Total	.	.	.	\$4,555,005 62	\$1,763,878 45	\$1,989,768 61	\$351,775 38	\$8,660,428 06	\$9,397,521 78

ABSTRACT OF STREET RAILWAY RETURNS — CONTINUED.

		STREET RAILWAYS.	PROPERTY ACCOUNTS: ADDITIONS AND REDUCTIONS DURING THE YEAR.					
			14. — Construction.	15. — Equipment.	16. — Other Prop-erty.	17. — Total Ad-ditions.	18. — Reductions.	19. — Net Additions.
1		Albany Street Freight	—	—	—	—	—	—
2		Arlington	—	—	—	—	—	—
3		Boston & Chelsea	—	—	—	—	—	—
4		Cambridge	\$18,000 00	—	—	\$18,000 00	—	\$18,000 00
5		Haverhill & Groveland	—	\$68 50	\$300 00	368 50	\$785 52	417 02 <i>d</i>
6		Highland	54,747 92	\$48,121 22	\$20,102 62	122,971 76	\$14,795 00	108,176 76
7		Lowell	—	—	—	—	—	—
8		Lynn & Boston	6,605 41	3,500 00	8,002 80	18,108 21	12,000 00	6,108 21
9		Lynn City	—	290 25	—	290 25	—	290 25
10		Malden & Melrose	—	—	—	—	—	—
11		Medford & Charlestown	16,364 09	—	—	16,364 09	—	16,364 09
12		Merrimac Valley	—	—	—	—	2,000 00	2,000 00 <i>d</i>
13		Metropolitan	49,001 70	500 00	—	49,501 70	1,705 86	47,795 84
14		Middlesex	401 90	6,610 50	9,823 33	16,835 73	60 00	16,775 73
15		Naumkeag	1,072 45	2,457 34	—	3,529 79	—	3,529 79
16		New Bedford & Fairhaven	—	—	—	—	911 06	911 06 <i>d</i>
17		Newburyport & Amesbury	72 59	—	—	72 59	—	72 59

ABSTRACT OF STREET RAILWAY RETURNS — CONTINUED.

	STREET RAILWAYS.	REVENUE FOR THE YEAR.					25. — Total Income.
		20. — Passengers.	21. — Rents.	22. — Mail and Express.	23. — Sales of Manure.	24. — Other Sources.	
1	Albany Street Freight . . .	*	—	—	—	\$1,179 00	\$1,179 00
2	Arlington . . .	†	\$816 00	—	—	—	816 00
3	Boston & Chelsea . . .	††	8,800 00	—	—	—	8,800 00
4	Cambridge . . .	†	80,370 00	—	—	3,000 00	83,370 00
5	Haverhill & Groveland . . .	\$9,101 67	—	—	\$84 00	75 00	9,260 67
6	Highland . . .	344,672 62	4,417 52	—	2,148 26	1,055 77	352,294 17
7	Lowell . . .	35,219 63	—	—	500 00	281 66	36,001 29
8	Lynn & Boston . . .	153,157 64	950 00	—	1,199 04	—	155,306 68
9	Lynn City . . .	12,010 49	—	—	195 72	224 00	12,430 21
10	Malden & Melrose . . .	**	—	—	—	—	—
11	Melford & Charlestown . . .	**	—	—	—	—	—
12	Merrimac Valley . . .	32,825 51	—	—	496 00	624 56	33,946 07
13	Metropolitan . . .	1,180,245 36	16,608 47	—	10,959 68	6,341 30	1,214,154 81
14	Middlesex . . .	254,902 33	6,316 60	—	2,144 34	—	263,363 27
15	Naumkeag . . .	51,420 83	—	—	1,111 05	1,279 60	53,811 48
16	New Bedford & Fairhaven . . .	33,726 73	—	\$343 38	423 27	192 50	34,685 88
17	Newburyport & Amesbury . . .	\$§	—	—	—	2,700 00	2,700 00

	Newburyport & Amesbury (less see's account)	\$14,169 11	-	-	\$200 00	-	\$14,369 11
18	Northampton	5,068 68	-	\$165 25	100 00	-	5,333 93
19	North Woburn	3,234 90	-	93 75	72 50	\$15 00	3,416 15
20	Salem	\$	\$100 00	-	-	510 34	610 34
21	Somerville	†	6,780 00	-	-	-	6,780 00
22	South Boston	302,280 23	-	-	1,870 00	1,125 27	305,275 50
23	Springfield	27,267 39	-	-	283 83	1,365 63	28,916 85
24	Stoneham	12,665 56	-	250 00	108 00	-	13,023 56
25	Taunton	17,362 36	-	-	-	-	17,362 36
26	Union	461,705 69	-	-	5,764 07	6,657 65	474,127 41
27	Waltham & Newton	7,195 30	-	50 00	122 00	-	7,367 30
28	Winnisimmet	††	2,550 00	-	-	132 75	2,682 75
29	Worcester	38,065 13	-	-	252 50	-	38,317 63
	Total	\$2,996,297 16	\$127,708 59	\$902 38	\$28,034 26	\$26,760 03	\$3,179,702 42

* Used only for freight.

§ Leased to and operated by the Naumkeag.

† Leased to and operated by the Union.

§§ Leased to and operated by E. T. Northend.

†† Leased to and operated by the Lynn & Boston.

** Leased to and operated by the Middlesex.

ABSTRACT OF STREET RAILWAY RETURNS — CONTINUED.

STREET RAILWAYS.		EXPENSES FOR THE YEAR.						
		26. — Repairs of Road-bed and Track.	27. — Repairs of Equipment.	28. — Repairs of Buildings.	29. — Renewal of Horses.	30. — Salaries, etc., General Office.	31. — Wages, etc., Employés.	32. — Provender.
1	Albany Street Freight	\$122 21	-	-	-	-	-	-
2	Arlington	-	-	-	-	-	-	-
3	Boston & Chelsea	-	-	-	-	-	-	-
4	Cambridge	-	-	-	-	-	-	-
5	Haverhill & Groveland	952 67	\$673 86	\$22 76	\$135 00	\$700 00	\$2,368 77	\$1,081 67
6	Highland	5,274 70	23,129 36	1,354 26	7,544 50	17,515 00	146,610 01	50,711 72
7	Lowell	2,719 25	2,984 39	26 80	1,286 00	2,325 86	10,011 34	5,074 67
8	Lynn & Boston	15,719 93	16,946 79	1,283 61	4,042 10	6,291 32	48,076 67	18,481 62
9	Lynn City	278 15	770 83	8 42	50 00	1,300 00	2,589 78	2,481 21
10	Malden and Melrose	-	-	-	-	-	-	-
11	Medford & Charlestown	-	-	-	-	-	-	-
12	Merrimac Valley	4,432 63	2,926 20	139 27	607 50	1,400 00	9,492 27	5,775 28
13	Metropolitan	30,547 85	121,521 96	12,732 80	30,631 82	23,175 07	512,194 03	167,670 18
14	Middlesex	10,085 33	20,676 98	1,071 19	5,917 50	11,500 00	79,989 31	34,433 17
15	Naumkeag	3,383 33	4,950 37	270 73	659 00	2,258 40	11,438 79	6,946 65
16	New Bedford & Fairhaven	1,439 31	3,490 70	81 52	1,313 00	1,832 58	11,820 66	4,738 92
17	Newburyport & Amesbury	-	-	-	-	50 00	-	-

	Newburyport & Amesbury (less see's account)	\$525 00	\$650 00	-	\$500 00	-	\$2,575 00	\$2,950 00
18	Northampton	554 23	573 10	-	319 00	\$600 00	1,422 00	1,028 26
19	North Woburn	617 06	335 93	\$32 85	60 00	-	1,245 36	792 46
20	Salem	-	-	-	-	-	-	-
21	Somerville	-	-	-	-	-	-	-
22	South Boston	18,358 40	25,377 83	2,225 42	7,042 00	7,274 85	117,327 78	41,610 68
23	Springfield	637 17	3,305 00	116 15	554 00	2,400 00	7,604 41	3,440 12
24	Stoneham	1,490 15	687 79	229 28	-	-	3,473 78	1,946 12
25	Taunton	700 00	1,650 00	900 00	-	1,200 00	5,400 93	2,946 34
26	Union	3,616 63	14,830 13	1,637 61	26,533 25	11,780 00	170,666 42	60,386 45
27	Waltham & Newton	659 37	227 81	-	-	1,020 00	2,492 28	1,173 56
28	Winnisimmet	-	-	-	-	84 23	-	-
29	Worcester	4,626 77	3,018 70	57 45	1,439 50	2,199 96	11,355 52	5,413 08
	Total	\$106,790 14	\$248,727 73	\$22,190 12	\$88,634 17	\$94,907 27	\$1,158,155 11	\$419,082 16

ABSTRACT OF STREET RAILWAY RETURNS — CONTINUED.

	STREET RAILWAYS.	EXPENSES FOR THE YEAR.—Con.						39.—Percent- age Expenses to Income.
		33.—Taxes.	34.—Rents.	35.—Insurance.	36.—Injuries to Persons and Property.	37.—Other Ex- penses.	38.—Total Ex- penses.	
1	Albany Street Freight	\$83 58	—	—	—	\$697 94	\$903 73	76.60
2	Arlington	—	—	—	—	—	—	—
3	Boston & Chelsea	827 64	—	—	—	20 00	847 64	—
4	Cambridge	—	—	—	—	—	—	—
5	Haverhill & Groveland	155 31	—	\$86 00	—	1,118 68	7,274 72	78.55
6	Highland	4,881 51	\$16,470 74	4,100 89	\$2,360 00	8,355 09	288,307 78	81.80
7	Lowell	166 73	—	286 51	155 00	2,661 78	27,698 33	76.90
8	Lynn & Boston	645 77	17,209 50	667 30	1,164 52	10,291 01	140,820 14	90.67
9	Lynn City	280 76	950 00	130 25	—	855 22	9,694 62	77.98
10	Malden & Melrose	—	—	—	—	—	—	—
11	Medford & Charlestown	—	—	—	—	—	—	—
12	Merrimac Valley	590 04	—	148 75	—	694 40	26,206 34	77 00
13	Metropolitan	22,658 91	1,547 54	4,213 70	18,287 91	53,552 83	998,734 60	82.15
14	Middlesex	5,129 85	7,102 78	1,059 28	1,715 17	13,997 39	192,677 95	73.16
15	Naumkeag	425 56	100 00	551 06	371 20	4,992 15	36,347 24	67.54
16	New Bedford & Fairhaven	103 21	—	192 00	285 36	1,260 07	26,557 33	76.56
17	Newburyport & Amesbury	—	—	—	—	36 10	86 10	—

ABSTRACT OF STREET RAILWAY RETURNS — CONTINUED.

STREET RAILWAYS.		NET INCOME, INTEREST, DIVIDENDS, ETC.						
		40.—Net Income.	41.—Interest Accrued.	42.—Dividends Declared.	43.—Per cent.	44.—Balance for the Year.	45.—Surplus last Year.	46.—Surplus Sept. 30, 1879.
1	Albany Street Freight	\$275 27	—	—	—	\$275 27	\$367 08	\$642 35
2	Arlington	816 00	—	\$816 00	6	—	—	—
3	Boston and Chelsea	7,952 36	—	6,600 00	6	1,352 36	3,129 19	4,481 55
4	Cambridge	83,370 00	—	80,370 00	9	3,000 00	—	—
5	Haverhill & Groveland	1,985 95	—	1,680 00	7	305 95	1,508 81	1,166 24
6	Highland	63,986 39	\$25,612 23	28,000 00	8	10,374 16	15,591 11	25,965 27
7	Lowell	8,302 96	720 00	—	—	7,582 96	1,358 84 <i>d</i>	6,224 12
8	Lynn & Boston	14,486 54	3,181 77	—	—	11,304 77	1,814 15	1,118 92
9	Lynn City	2,735 59	421 75	995 00	5	1,318 84	6,372 49	7,691 33
10	Malden & Melrose	—	—	—	—	—	120,253 52 <i>d</i>	120,253 52 <i>d</i>
11	Medford & Charlestown	—	—	—	—	—	7,244 34	7,244 34
12	Merrimac Valley	7,739 73	—	3,000 00	6	4,739 73	4,449 21	7,188 94
13	Metropolitan	215,420 21	76,131 35	120,000 00	8	19,288 86	339,620 79	358,909 65
14	Middlesex	70,685 32	31,586 67	24,000 00	6	15,098 65	23,701 30	38,799 95
15	Naumkeag	17,464 24	5,352 81	—	—	12,111 43	13,154 43	25,265 86
16	New Bedford & Fairhaven	8,128 55	2,150 46	—	—	5,978 09	10,552 24	15,569 27
17	Newburyport & Amesbury	2,613 90	2,310 00	—	—	303 90	452 72 <i>d</i>	148 82 <i>d</i>

18	Northampton	.	.	.	\$590 45 <i>d</i>	-	-	-	\$590 45 <i>d</i>	\$5,161 04 <i>d</i>	\$5,751 49 <i>d</i>
19	North Woburn	.	.	.	127 72	\$110 00	-	-	17 72	2,920 47	220 82
20	Salem	.	.	.	610 34	-	-	-	610 34	20,970 45	21,580 79
21	Somerville	.	.	.	6,780 00	-	\$6,780 00	6	-	-	-
22	South Boston	.	.	.	47,816 99	7,586 76	28,800 00	6	11,430 23	20,863 66	35,008 89
23	Springfield	.	.	.	9,312 86	-	29,000 00	58	19,687 14 <i>d</i>	38,248 26	17,893 44
24	Stoneham	.	.	.	3,558 44	201 00	990 00	3	2,367 44	7,899 51	8,518 15
25	Taunton	.	.	.	2,300 81	302 50	1,200 00	3	798 31	4,236 88	5,035 19
26	Union	.	.	.	45,761 74	7,570 15	37,430 00	10	761 59	32,478 35	33,239 94
27	Waltham & Newton	.	.	.	593 35	-	-	-	593 35	1,883 06 <i>d</i>	1,289 71 <i>d</i>
28	Winnisimmet	.	.	.	2,245 55	-	5,000 00	10	2,754 45 <i>d</i>	5,414 30	2,659 85
29	Worcester	.	.	.	6,584 13	3,711 13	-	-	2,873 00	2,688 94 <i>d</i>	1,528 30 <i>d</i>
	Total	.	.	.	\$631,064 49	\$166,948 58	\$374,661 00	6.85	\$89,454 91	\$428,738 90	\$495,453 02

d Deficits.

ABSTRACT OF STREET RAILWAY RETURNS—CONTINUED.

	STREET RAILWAYS.	EQUIPMENT.				LENGTH OF ROAD.		
		47.—Cars.	48.—Other Vehicles.	49.—Horses.	50.—Harnesses.	51.—Main Line.	52.—Sidings.	53.—Total Length.
1	Albany Street Freight	.	.	.	.	.856	.076	.932
2	Arlington . . .	.	.	.	.	1.576	—	1.576
3	Boston & Chelsea . . .	.	.	.	.	3.573	.041	3.614
4	Cambridge . . .	.	.	.	.	32.670	.880	33.550
5	Haverhill & Groveland . . .	.	.	.	.	3.113	.167	3.280
6	Highland . . .	.	.	.	.	13.273	.530	13.803
7	Lowell . . .	.	.	.	.	4.611	.216	4.827
8	Lynn & Boston . . .	.	.	.	.	10.732	.616	11.348
9	Lynn City . . .	.	.	.	.	1.964	.067	2.031
10	Malden & Melrose . . .	.	.	.	.	3.500	.333	3.833
11	Medford & Charlestown . . .	.	.	.	.	1.250	.270	1.520
12	Merrimac Valley . . .	.	.	.	.	5.800	.770	6.570
13	Metropolitan . . .	.	.	.	.	54.253	5.954	60.207
14	Middlesex . . .	.	.	.	.	9.981	1.150	11.131
15	Naumkeag . . .	.	.	.	.	1.276	.351	1.627
16	New Bedford & Fairhaven . . .	.	.	.	.	4.106	.424	4.530
17	Newburyport & Amesbury . . .	.	.	.	.	6.333	.038	6.371

18	Northampton	.	.	.	.	.	.	.	.	1	1	14	3	3,200	.030	3,230
19	North Woburn	.	.	.	.	.	.	2	2	3	7	4	4	2,690	—	2,690
20	Salem	.	.	.	.	.	.	—	—	—	—	—	—	7,785	.763	8,548
21	Somerville.	.	.	.	.	.	.	—	—	—	—	—	—	3,753	.274	4,027
22	South Boston	.	.	.	.	.	.	—	—	112	532	160	160	11,050	.155	11,205
23	Springfield	.	.	.	.	.	.	6	6	9	39	20	20	4,370	.800	5,170
24	Stoneham.	.	.	.	.	.	.	2	2	7	21	8	8	2,680	.050	2,730
25	Taunton	.	.	.	.	.	.	—	—	11	30	20	20	4,090	.228	4,318
26	Union	.	.	.	.	.	.	14	14	128	900	300	300	—	—	—
27	Waltham & Newton	.	.	.	.	.	.	5	5	4	12	5	5	3,211	.057	3,268
28	Winnisimmet	.	.	.	.	.	.	—	—	—	—	—	—	2,000	—	2,000
29	Worcester.	.	.	.	.	.	.	5	5	17	59	20	20	4,000	.620	4,620
	Total	.	.	.	.	.	.	171	171	1,089	5,403	1,647	1,647	207,696	14,860	222,556

ABSTRACT OF STREET RAILWAY RETURNS — CONTINUED.

		STREET RAILWAYS.		MILEAGE, ETC.					ACCIDENTS.	
				54. — Miles Run.	55. — Passengers Carried.	56. — Round Trips.	57. — Av. No. of Passengers per round Trip.	58. — Persons employ- ed.	59. — Fatal.	60. — In- jured.
1		Albany Street Freight	.	—	—	—	—	—	—	—
2		Arlington	.	—	—	—	—	—	—	—
3		Boston & Chelsea	.	—	—	—	—	—	—	—
4		Cambridge	.	—	—	—	—	—	—	—
5		Haverhill & Groveland	.	35,101	132,867	7,848	17	6	—	—
6		Highland	.	1,337,826	7,099,149	204,503	35	261	—	10
7		Lowell	.	149,449	675,698	16,605	40	25	—	—
8		Lynn & Boston	.	494,080	2,557,639	65,186	39	104	—	3
9		Lynn City	.	43,359	228,047	9,856	23	7	—	—
10		Malden & Melrose	.	—	—	—	—	—	—	—
11		Medford & Charlestown	.	—	—	—	—	—	—	—
12		Merrimac Valley	.	162,210	505,008	22,392	23	25	—	—
13		Metropolitan	.	4,751,093	23,605,843	729,301	32	1,068	4	2
14		Middlesex	.	814,870	4,834,878	126,219	38	175	—	2
15		Naumkeag	.	238,819	821,856	33,450	25	36	—	3
16		New Bedford & Fairhaven	.	152,934	619,218	41,658	15	19	—	—
17		Newburyport & Amesbury*	.	55,186	189,320	4,800	39	7	—	—

18	Northampton	.	.	.	.	24,648	59,246	3,851	15	4	-	-
19	North Woburn	.	.	.	.	18,281	48,622	3,398	15	2	-	-
20	Salem . . .	.	.	.	.	-	-	-	-	-	-	-
21	Somerville . . .	.	.	.	.	-	-	-	-	-	-	-
22	South Boston	.	.	.	.	951,162	6,068,673	157,820	38	276	-	10
23	Springfield . .	.	.	.	.	129,832	397,613	26,261	15	18	-	-
24	Stoneham . . .	.	.	.	.	40,000	139,424	8,000	16	9	-	1
25	Taunton . . .	.	.	.	.	79,990	317,983	13,710	23	9	-	-
26	Union . . .	.	.	.	.	1,548,329	8,572,409	207,140	41	313	-	-
27	Waltham & Newton	.	.	.	.	21,906	97,681	3,651	27	8	-	-
28	Winnisimmet . .	.	.	.	.	-	-	-	-	-	-	-
29	Worcester . . .	.	.	.	.	149,783	733,263	28,875	25	26	-	-
	Total . . .	.	.	.	.	11,198,858	57,704,437	1,714,524	34	2,398	4	31

* Lessee's account.

COMPARATIVE STATEMENTS FROM STREET RAILWAY RETURNS.

	STREET RAILWAYS.	PER MILE ROAD OWNED.			PER MILE ROAD OPERATED.	
		61. — Capital Stock Paid in.	62. — Net Debt.	63. — Cost of Construction.	64. — Cost of Equipment.	65. — Repairs of Road-bed and Track.
1	Albany Street Freight	\$58,411 20	—	\$57,320 40	—	—
2	Arlington	8,629 40	—	8,603 08	—	—
3	Boston & Chelsea	30,780 80	—	30,780 80	—	—
4	Cambridge	27,333 90	—	27,333 90	—	—
5	Haverhill & Groveland	7,709 60	—	4,882 70	\$2,152 30	\$306 00
6	Highland	37,678 10	\$22,562 60	22,657 20	14,632 40	397 40
7	Lowell	20,908 50	843 10	14,059 20	6,508 80	589 90
8	Lynn & Boston	18,630 00	4,423 50	14,408 70	3,679 35	1,131 90
9	Lynn City	10,132 38	2,566 80	9,714 69	3,425 22	95 30
10	Malden & Melrose	47,285 70	4,285 70	17,213 30	—	—
11	Medford & Charlestown	16,800 00	17,080 00	39,676 00	—	—
12	Merrimac Valley	8,620 70	—	3,620 70	1,741 40	764 30
13	Metropolitan	27,648 25	23,007 40	24,599 60	12,006 10	581 50
14	Middlesex	40,000 00	29,725 30	43,473 70	8,580 30	570 00
15	Naumkeag	—	—	—	4,699 45	373 38
16	New Bedford & Fairhaven	13,195 10	3,110 50	13,640 00	3,357 20	351 00
17	Newburyport & Amesbury	6,039 80	3,751 80	9,594 40	—	—

18	Northampton	\$15,625 00	\$937 80	\$14,406 25	\$343 75	\$173 20
19	North Woburn	9,293 70	1,404 90	9,500 00	724 90	229 40
20	Salem	19,267 82	4,788 00	26,148 90	-	-
21	Somerville	30,109 24	-	30,109 24	-	-
22	South Boston	45,248 80	13,987 30	23,829 30	17,168 80	1,661 40
23	Springfield	22,883 30	-	14,223 27	3,088 07	152 46
24	Stoneham	12,313 40	804 80	12,537 30	1,969 40	556 00
25	Taunton	9,779 95	233 45	5,868 00	2,942 50	171 15
26	Union	-	-	-	5,053 10	95 90
27	Waltham & Newton	9,342 85	5,612 45	11,676 55	2,774 35	205 35
28	Winnisimmet	25,000 00	-	26,250 00	-	-
29	Worcester	10,000 00	17,567 49	15,320 90	5,614 40	1,156 70
	Average	\$27,480 70	\$12,026 00	\$21,930 60	\$8,492 45	\$514 15

COMPARATIVE STATEMENTS FROM STREET RAILWAY RETURNS.

STREET RAILWAYS.			PER MILE ROAD OPERATED — CON.		GROSS INCOME.				
			66. — Renewal of Horses.	67. — Repairs of Equipment.	68. — Per Mile Operated.	69. — Per Round Trip.	70. — Per Mile Run.	71. — Per Pas- senger Carried.	
1	Albany Street Freight	.	.	.	—	—	—	—	—
2	Arlington	.	.	.	—	—	—	—	—
3	Boston & Chelsea	.	.	.	—	—	—	—	—
4	Cambridge	.	.	.	—	—	—	—	—
5	Haverhill & Groveland	.	.	.	\$43 40	\$216 50	\$2,974 80	\$1 18	\$0.2638
6	Highland	.	.	.	402 10	1,232 30	18,779 00	1 72	.2633
7	Lowell	.	.	.	278 90	647 20	7,807 70	2 17	.2416
8	Lynn & Boston	.	.	.	240 95	1,010 20	9,257 70	2 37	.3143
9	Lynn City	.	.	.	17 13	264 00	4,256 92	1 26	.2866
10	Malden & Melrose	.	.	.	—	—	—	—	—
11	Medford & Charlestown	.	.	.	—	—	—	—	—
12	Merrimac Valley	.	.	.	104 70	504 50	5,852 75	1 51	.2093
13	Metropolitan	.	.	.	535 50	2,124 50	21,226 50	1 66	.2555
14	Middlesex	.	.	.	334 30	1,168 20	14,879 20	2 08	.3231
15	Naumkeag	.	.	.	72 74	546 40	5,939 50	1 60	.2253
16	New Bedford & Fairhaven	.	.	.	320 25	851 40	8,460 00	83	.2267
17	Newburyport & Amesbury	.	.	.	—	—	—	—	—

18	Northampton					\$179 09	\$1,666 80	\$1 38	\$0.2167	\$0.0901
19	North Woburn					124 90	1,269 90	1 00	.1866	.0703
20	Salem					-	-	-	-	-
21	Somerville					-	-	-	-	-
22	South Boston					1,952 10	23,482 73	1 93	.3334	.0503
23	Springfield					756 28	6,617 13	1 10	.2225	.0728
24	Stoneham					256 60	4,859 50	1 63	.3255	.0934
25	Taunton					403 40	4,245 06	1 27	.2170	.0546
26	Union					393 20	12,569 70	2 29	.3058	.0553
27	Waltham & Newton					70 30	2,294 40	2 02	.3303	.0754
28	Winnisimmet					-	-	-	-	-
29	Worcester					754 70	9,579 40	1 33	.2554	.0522
	Average					\$1,197 50	\$15,309 10	\$1 85	\$0.2838	\$0.0551

COMPARATIVE STATEMENT FROM STREET RAILWAY RETURNS — CONCLUDED.

STREET RAILWAYS.		EXPENSES.					NET INCOME.			
		72. — Per Mile Operated.	73. — Per Round Trip.	74. — Per Mile Run.	75. — Per Passenger Carried.	76. — Per Mile Operated.	77. — Per Round Trip.	78. — Per Mile Run.	79. — Per Passenger Carried.	
1	Albany Street Freight	—	—	—	—	—	—	—	—	
2	Arlington	—	—	—	—	—	—	—	—	
3	Boston & Chelsea	—	—	—	—	—	—	—	—	
4	Cambridge	—	—	—	—	—	—	—	—	
5	Haverhill & Groveland	\$2,636 90	\$0 93	\$0.2073	\$0.0546	\$637 90	\$0 25	\$0.0565	\$0.0150	
6	Highland	15,368 20	1 41	.2155	.0406	3,410 80	31	.0478	.0090	
7	Lowell	6,007 20	1 65	.1859	.0409	1,800 70	50	.0557	.0123	
8	Lynn & Boston	8,394 15	2 15	.2850	.0550	863 55	22	.0293	.0057	
9	Lynn City	3,420 54	1 01	.2236	.0436	836 38	25	.0630	.0110	
10	Malden & Melrose	—	—	—	—	—	—	—	—	
11	Medford & Charlestown	—	—	—	—	—	—	—	—	
12	Merrimac Valley	4,518 30	1 17	.1616	.0519	1,334 45	34	.0477	.0153	
13	Metropolitan	17,460 40	1 36	.2102	.0423	3,766 10	30	.0453	.0091	
14	Middlesex	10,885 70	1 52	.2364	.0398	3,993 50	56	.0867	.0146	
15	Naumkeag	4,011 80	1 08	.1522	.0440	1,927 70	52	.0731	.0214	
16	New Bedford & Fairhaven	6,477 00	64	.1735	.0427	1,982 60	19	.0532	.0133	
17	Newburyport & Amesbury	—	—	—	—	—	—	—	—	

18	Northampton	.	.	.	\$1,851 36	\$1 53	\$0.2408	\$0.1000	\$184 56d	\$0 15d	\$0.0231d	\$0.0099d
19	North Woburn	.	.	.	1,222 40	96	.1797	.0677	47 50	04	.0069	.0026
20	Salem .	.	.	.	—	—	—	—	—	—	—	—
21	Somerville .	.	.	.	—	—	—	—	—	—	—	—
22	South Boston	.	.	.	19,804 50	1 63	.2815	.0424	3,678 23	30	.0519	.0089
23	Springfield .	.	.	.	4,486 04	74	.1508	.0493	2,131 09	36	.0717	.0235
24	Stoneham .	.	.	.	3,531 70	1 18	.2366	.0681	1,327 80	44	.0889	.0253
25	Taunton .	.	.	.	3,632 50	1 10	.1883	.0474	562 56	17	.0287	.0072
26	Union .	.	.	.	11,356 50	2 07	.2763	.0499	1,213 20	22	.0295	.0054
27	Waltham & Newton	.	.	.	2,109 60	1 86	.3092	.0693	184 80	16	.0271	.0061
28	Winnisimmet	.	.	.	—	—	—	—	—	—	—	—
29	Worcester .	.	.	.	7,933 40	1 09	.2115	.0432	1,646 00	24	.0439	.0090
	Average.	.	.	.	\$12,251 05	\$1 48	.2272	.0441	\$3,058 05	\$0 37	\$0.0566	\$0.0110

d Deficits,

TABULATED STATEMENT,

COMPILED FROM

RETURNS OF RAILROADS.

[FOR CONTENTS OF TABLES, SEE PAGES 117-119.]

RAILROADS AND BRANCHES. (BRANCHES IN ITALICS.)	WHERE LOCATED.		LENGTH.		DOUBLE TRACK.		SIDINGS.		7.—Total length com- puted as single track.
	From.	To.	1.—Total.	2.—In Mass.	3.—In Mass.	4.—Out of Mass.	5.—In Mass.	6.—Out of Mass.	
ASHBURNHAM	Ashb'ham June.	Ash'm Centre .	2.500	2.500	—	—	.379	—	2.879
ATTLEBOROUGH BRANCH. (See <i>Boston & Providence</i>)	—	—	—	—	—	—	—	—	—
BERKSHIRE. (See <i>Housatonic</i>), BOSTON & ALBANY	Boston .	Albany, N.Y. .	201.650	162.350	162.350	39.300	155.250	33.210	640.740
<i>Grand Junction</i>	Cottage Farm .	East Boston .	9.300	9.300	—	—	—	—	—
<i>Newton Lower Falls</i>	Riverside June .	Newton L. Falls,	1.100	1.100	—	—	—	—	—
<i>Brookline</i>	Beacon St., Bos- ton .	Brookline .	1.550	1.550	—	—	—	—	—
<i>Saxonville</i>	Natick .	Saxonville .	3.700	3.700	—	—	—	—	—
<i>Milford</i>	S. Framingham, Millbury .	Milford .	12.	12.	—	—	—	—	—
<i>Chatham & Hudson</i>	Millbury June .	Millbury Village, Chatham, N.Y. .	3.	3.	—	—	—	—	—
North Brookfield	E. Brookfield .	Hudson, N.Y. .	17.330	—	—	1 000	—	—	—
Pittsfield & North Adams	Pittsfield .	N. Brookfield .	4.160	4.160	—	—	.490	—	4.650
Ware River	Palmer .	North Adams .	18.650	18.650	—	—	3.640	—	92.290
Spencer	Palmer .	Winchendon .	49.300	49.300	—	—	4.320	—	53.620
BOSTON, BARRE & GARDNER	So. Spencer St'n, Worcester .	Spencer .	2.165	2.165	—	—	.745	—	2.910
Monadnock	Winchendon .	Winchendon .	36.530	36.530	—	—	8.340	—	44.870
BOSTON, CLINTON, FITCHBURG & NEW BEDFORD. (See <i>Old Colony</i>)	Winchendon .	Peterboro', N.H.	15.800	2.038	—	—	—	.600	16.400
BOSTON & LOWELL	Boston .	Lowell .	—	—	—	—	—	—	—
<i>Lexington & Arlington</i>	Medford June .	Lexington .	26.750	26.750	26.750	—	32.910	—	134.840
<i>Stoneham</i>	Montvale St'n .	Stoneham .	9.250	9.250	—	—	—	—	—
<i>Woburn</i>	Winchester .	Woburn Centre, Mystic Wharves,	2.500	2.500	—	—	—	—	—
<i>Mystic</i>	Milk Row June .	—	2.	2.	—	—	—	—	—
			2.250	2.250	—	—	—	—	—

RAILROADS AND BRANCHES. (BRANCHES IN ITALICS.)	WHERE LOCATED.		LENGTH.		DOUBLE TRACK.		SIDINGS.		7.—Total length com- puted as single track.
	From.	To.	1.—Total.	2.—In Mass.	3.—In Mass.	4.—Out of Mass.	5.—In Mass.	6.—Out of Mass.	
<i>Brought forward</i>			820.148	610.275	281.722	46 498	307.756	89.849	1,545.973
DANVERS. (See <i>Boston & Maine</i>)	—	—	—	—	—	—	—	—	—
DORCHESTER & MILTON. (See <i>Old Colony</i>)	—	—	—	—	—	—	—	—	—
EASTERN	Boston	State Line	41.390	41.390	27.800	—	43.813	—	193 945
<i>East Boston</i>	Revere	East Boston	3.310	3.310	1.230	—	—	—	—
<i>Saugus</i>	Revere	Lynn	9.520	9.520	—	—	—	—	—
<i>Marblehead</i>	Salem	Marblehead	4.	4.	—	—	—	—	—
<i>Lynn & Marblehead</i>	Swampscott	Marblehead	3.800	3.800	—	—	—	—	—
<i>Lawrence</i>	Salem	Lawrence	19.660	19.660	2.	—	—	—	—
<i>Gloucester</i>	Beverly	Rockport	17.380	17.380	—	—	—	—	—
<i>Salisbury</i>	Salisbury	Amesbury	3.750	3.750	—	—	—	—	—
<i>Asbury Grove</i>	Hamilton Sta'n,	Asbury Grove	1.	1.	—	—	—	—	—
<i>Essex</i>	Wenham	Essex	5.	5.	—	—	—	—	—
<i>Charlestown</i>	—	In Charlestown.	1.086	1.086	1.086	—	—	—	—
<i>South Reading</i>	Peabody	Wakefield Junc.	8.120	8.120	—	—	—	—	—
Newburyport City	E.andB.&M.R.R,	Wharves	2.080	2.080	.150	—	1.800	—	4.030
FALL RIVER.	New Bedford	Fall River	12.250	12.250	—	—	.673	—	12.923
FALL RIVER, WARREN & PROVIDENCE (owned by <i>Old Colony Railroad Co.</i>)	Fall River	Warren, R.I.	5.794	3.662	—	—	.040	480	6.314
FITCHBURG	Boston	Fitchburg.	50.	50.	50.	—	48.400	1.370	193.770
<i>Ice</i>	—	In Charlestown.	.680	.680	.680	—	—	—	—
<i>Watertown Branch</i>	N. Cambridge	Waltham	6 600	6 600	—	—	—	—	—
<i>Lancaster & Marlborough,</i>	South Acton	Marlborough	12.420	12.420	—	—	—	—	—
<i>Peterborough & Shirley</i>	Ayer	Greenville	23.620	14.250	—	—	—	—	—
Vermont & Massachusetts	Fitchburg.	Greenfield	56.	56.	10.390	—	19.630	3.170	91.990

<i>Turner's Falls</i>	Greenfield	Turner's Falls	2,800	2,800	—	—	—	—	—
FRAMINGHAM & LOWELL. (See <i>Old Colony</i>)	—	—	—	8.	—	—	—	—	—
HANOVER BRANCH.	N. Abington	South Hanover.	—	8.	—	—	—	—	9.
HOLYOKE & WESTFIELD. (See <i>N. Haven & Northampton</i>)	—	—	—	—	—	—	—	—	—
HOPKINTON. (See <i>Providence and Worcester</i>)	—	—	—	—	—	—	—	—	—
HORN POND BRANCH. (See <i>Boston & Lowell</i>)	—	—	—	—	—	—	—	—	—
HOUSATONIC (Ct.)	—	—	—	—	—	—	—	—	—
Berkshire	W. Stockbridge.	State Line of Ct.	22.	22.	—	—	—	—	24.
Stockbridge & Pittsfield	Vandensenville.	Pittsfield	22.	22.	—	—	—	—	25.400
West Stockbridge	W. Stockbridge,	State Line N. Y.	2,750	—	—	—	—	—	5,500
LOWELL & ANDOVER. (See <i>Boston & Maine</i>)	—	—	—	—	—	—	—	—	—
Branch to Framingham & Lowell Railroad.	—	—	—	—	—	—	—	—	—
Branch to Boston & Lowell Railroad	—	—	—	—	—	—	—	—	—
MIDDLESEX CENTRAL. (See <i>Boston & Lowell</i>)	—	—	—	—	—	—	—	—	—
MILFORD & WOONSOCKET. (See <i>Providence & Worcester</i>)	—	—	—	—	—	—	—	—	—
MONADNOCK. (See <i>Boston, Barre & Gardner</i>)	—	—	—	—	—	—	—	—	—
Carried forward	—	—	1,165.158	943.783	375.058	46.498	431.262	94.869	2,112.845

RAILROADS AND BRANCHES. (BRANCHES IN ITALICS.)	WHERE LOCATED.		LENGTH.		DOUBLE TRACK.		SIDINGS.		7. — Total length computed as single track.
	From.	To.	1. — Total.	2. — In Mass.	3. — In Mass.	4. — Out of Mass.	5. — In Mass.	6. — Out of Mass.	
<i>Brought forward</i>			1,165.158	943.783	375.058	46.498	431.262	94.869	2,112.845
NASHUA, ACTON & BOSTON (op'd by <i>Manchester & Lawrence, N.H.</i>)			20.210	15.460	—	—	.850	1.680	22.740
NASHUA & LOWELL	Acton	Nashua, N.H.	14.500	9.250	9.250	5.250	4.000	3.350	36.350
Stony Brook	Lowell	Nashua, N.H.	13.160	13.160	—	—	.950	—	14.110
NEWBURYPORT. (See <i>Boston & Maine</i>).	N. Chelmsford	Ayer	—	—	—	—	—	—	—
NEWBURYPORT CITY. (See <i>Eastern</i>).	—	—	—	—	—	—	—	—	—
NEW HAVEN & NORTHAMPTON, <i>Collinsville (Ct.)</i>	—	—	—	—	—	—	—	—	—
<i>Tariffville</i>	New Haven, Ct.	Williamsburg	83.880	32.620	—	—	12.750	14.250	126.010
Holyoke & Westfield	Farmington, Ct.	N. Hartford, Ct.	14.090	—	—	—	—	—	—
NEW LONDON NORTHERN (op'd by J. Gregory Smith and others)	Simsbury, Ct.	Tariffville, Ct.	1.040	—	—	—	—	—	—
<i>Brattleborough</i>	Westfield	Holyoke	14.320	14.320	—	—	2.900	—	17.220
NEW YORK & N. ENGLAND, { <i>Woonsocket Division</i> <i>Southbridge</i> <i>Dedham</i> <i>Dorrence Street</i> <i>Ridge Hill</i> Rhode Island & Massachusetts	New London, Ct.	Miller's Falls	100.	44.	—	—	5.290	11.610	116.900
	Miller's Falls	Brattleboro', Vt.	21.310	11.	—	—	—	—	21.310
	Boston	Waterbury, Ct.	149.660	52.000	14.900	—	26.880	33.280	338.930
	Providence, R.I.	Williamantic, Ct.	58.500	—	—	—	—	—	—
	Brookline	Woonsocket	33.750	32.750	—	—	—	—	—
	E. Thompson, Ct.	Southbridge	17.500	12.500	—	—	—	—	—
	Elmwood	Dedham	2.	2.	—	—	—	—	—
	—	In Providence	.820	—	—	—	—	—	—
	Charles Riv. St'n,	Ridge Hill	1.640	1.640	—	—	—	—	—
	Franklin	State Line of R.I.	6.620	6.620	—	—	—	—	6.620

NEW YORK, NEW HAVEN & HARTFORD	NEW YORK.	Springfield	123.	5,870	5,870	117,130	4,350	52,650	320,500
N. Britain & Berlin (Ct.),	Berlin, Ct.	New Britain, Ct.	3.	-	-	-	-	-	-
Middletown & Berlin	Berlin, Ct.	Middletown, Ct.	10.	-	-	-	-	-	-
W. Locks & Suffield	Windsor Locks.	Suffield, Ct.	4,500	-	-	-	-	-	-
NORWICH & WORCESTER	Worcester	Norwich, Ct.	59,400	17,400	-	-	4,100	9,800	80,300
Allyn's Point (Ct.)	Norwich .	Allyn's Point	7.	-	-	-	-	-	-
NORTH BROOKFIELD. (See Boston & Albany)	-	-	-	-	-	-	-	-	-
OLD COLONY	Boston	Provincetown	120,010	233,700	11,280	-	65,330	1,970	377,790
	S. Braintree	Plymouth .	26,040						
	Braintree .	Kingston .	32,300						
	S. Braintree	Newport .	56,580						
	Middleborough .	Somerset J'n	14,960						
	Middleborough .	Taunton .	8,040	-	-	-	-	-	-
	-	In Stoughton	1,650	-	-	-	-	-	-
	S. Abington	Bridgewater	7,080	-	-	-	-	-	-
	Atlantic	Braintree .	5,410	-	-	-	-	-	-
	Cohasset Nar'ws,	Wood's Holl	17,540	-	-	-	-	-	-
NEW YORK, NEW HAVEN & HARTFORD	Yarmouth .	Hyannis .	5,050	-	-	-	-	-	-
	Shawmut	Milton L. Mills,	2,390	2,390	-	-	-	-	-
	Connection with F. R.,	-	2,160	2,160	-	-	-	-	-
	W. & P. R.R.	-	2,160	2,160	-	-	-	-	-
	Boston, Clinton, Fitch-	New Bedford	91,021	91,021	4,008	-	32,684	-	162,024
	burg & New Bedford .	Marlborough	1,467	1,467	-	-	-	-	-
	Marlborough .	Taunton .	.606	.606	-	-	-	-	-
	Weir .	In New Bedford,	.353	.353	-	-	-	-	-
	Acushnet	Tremont Stat'n,	15,170	15,170	-	-	-	-	-
	Fairhaven	Attleborough	8,600	8,600	-	-	-	-	-
Carried forward	-	-	2,341,485	1,614,610	420,366	168,878	591,346	223,459	3,753,649

RAILROADS AND BRANCHES. (BRANCHES IN ITALICS.)	WHERE LOCATED.		LENGTH.		DOUBLE TRACK.		SIDINGS.		7.—Total length com- puted as single track.
	From.	To.	1.—Total.	2.—In Mass.	3.—In Mass.	4.—Out of Mass.	5.—In Mass.	6.—Out of Mass.	
<i>Brought forward</i>									
<i>Sterling</i>	Pratt's Junction,	Sterling Junction.	2,341.485	1,614.610	420.386	168.878	591.346	223.459	3,753.649
<i>Lancaster Mills</i>	—	In Lancaster .	5.671	5.671	—	—	—	—	—
<i>Framingham Prison</i>	—	In Framingham,	1.629	1.629	—	—	—	—	—
Dorchester & Milton	Neponset .	Mattapan .	.815	.815	—	—	.450	—	3.750
Framingham & Lowell	S. Framingham,	Lowell .	3.300	3.300	—	—	4.958	—	31.078
PITTSFIELD & NORTH ADAMS. (See <i>Boston & Albany</i>)	—	—	26.120	26.120	—	—	—	—	—
PROVIDENCE & WORCESTER	Providence, R.I.	Worcester .	—	—	13.000	17.900	14.210	9.830	106.350
<i>Worcester</i>	—	In Worcester .	43.410	25.510	—	—	—	—	—
<i>East Providence</i>	Valley Falls .	E. Providence .	1.	1.	—	—	—	—	—
Hopkinton	Milford .	Ashland .	7.	.500	—	—	.140	—	11.590
Milford & Woonsocket	Milford .	Bellingham .	11.450	11.450	—	—	.459	—	4.336
RHODE ISLAND & MASSACHU- SETTS. (See <i>New York &</i> <i>New England R.R. Co.</i>)	—	—	3.877	3.877	—	—	—	—	—
SPRINGFIELD & NORTH-EAST- ERN	Springfield .	Athol .	—	—	—	—	—	—	—
SPRINGFIELD & NEW LONDON	Springfield .	State Line of Ct.	48.500	48.500	—	—	4.000	—	52.500
STOCKBRIDGE & PITTSFIELD. (See <i>Housatonic</i>)	—	—	7.500	7.500	—	—	.500	—	8.
STONY BROOK. (See <i>Nashua &</i> <i>Lowell</i>)	—	—	—	—	—	—	—	—	—
SOUTHERN VERMONT	—	—	—	—	—	—	—	—	—
TROY & GREENFIELD	Greenfield .	In Vermont .	6.170	—	—	—	—	—	6.170
UNION FREIGHT	B. & L. R.R.	State Line Vt. .	44.	44.	—	—	18.500	—	62.500
		B. & P. R.R.	2.451	2.451	.522	—	1.760	—	4.733

VERMONT & MASSACHUSETTS.

(See *Fitchburg*) . . .
Turner's Falls. (See
Fitchburg) . . .
Brattleborough. (See *N.*
London Northern) . . .
 WARE RIVER. (See *Boston &*
Albany) . . .
 WEST AMESBURY BRANCH.
 (See *Boston & Maine*) . . .
 WEST STOCKBRIDGE. (See
Housatonic) . . .
 WORCESTER & NASHUA . . .

Worcester

Nashua, N.H.

39,060

16,830

—

10,860

2,920

76,300

NARROW GAUGE.

BOSTON, REVERE BEACH &
 LYNN . . .
 BOSTON, WINTHROP & POINT
 SHIRLEY . . .
 GRAFTON CENTRE . . .
 MARTHA'S VINEYARD . . .
Katama . . .
 WORCESTER & SHREWSBURY . . .

East Boston

Lynn

8,800

8,800

—

—

2,400

—

11,200

Winthrop Junc.

To Winthrop

2,550

2,550

—

—

300

—

2,850

Grafton Station,

Grafton Centre,

3.

3.

—

—

500

—

3.

Oak Bluffs

Katama

8,330

8,330

—

—

—

—

9,280

Katama

South Beach

450

450

—

—

—

—

—

Worcester

L. Quinsigamond,

2,700

2,700

—

—

—

—

2,700

Total

. . .

2,625,898

1,861,823

450,718

186,778

650,383

236,209

4,149,986

	8.—BOSTON & ALBANY.	9.—FITCHBURG.	10.—BOSTON & LOWELL.	11.—BOSTON & MAINE.	12.—EASTERN.
CAPITAL STOCK.					
Amount paid in	\$20,000,000 00	\$4,500,000 00	\$3,250,000 00	\$6,921,274 52	\$4,997,600 00
Number of stockholders	5,776	2,653	1,064	4,370	2,684
Stockholders in Massachusetts	5,004	2,239	856	2,443	1,785
Amount of stock held in Massachusetts	\$17,778,900 00	\$3,909,000 00	\$2,859,000 00	\$4,830,800 00	\$4,065,400 00
DEBT.					
Amount of funded debt	\$7,000,000 00	\$1,000,000 00	\$3,496,400 00	\$3,500,000 00	\$13,589,237 76
Amount of unfunded debt	1,005,710 80	1,216,974 76	259,946 75	108,103 16	1,466,681 28
TOTAL GROSS DEBT	8,005,710 80	2,216,974 76	3,756,346 75	3,608,103 16	15,055,919 04
PERMANENT INVESTMENTS.					
Construction	\$24,368,716 50	\$4,211,099 00	\$5,781,306 72	\$9,512,615 54	\$7,000,000 00
Equipment	3,145,400 00	1,169,928 43	441,833 81	1,242,230 00	800,100 00
Other property	1,202,416 18	1,005,331 65	536,773 99	786,836 67	1,306,410 00
Total permanent investments	28,716,532 68	6,386,359 08	6,759,914 52	11,541,682 21	9,106,510 00
Cash and cash assets	2,230,393 12	824,091 09	798,135 03	616,688 88	582,650 75
TOTAL PROPERTY AND ASSETS	30,946,925 80	7,210,450 17	7,558,049 55	12,158,371 09	9,689,160 75
REVENUE FOR THE YEAR.					
From local passengers	\$1,417,705 67	\$488,334 64	\$426,009 13	\$1,104,179 49	\$1,191,998 21
through passengers†	747,994 01	174,955 20	104,055 71	152,888 08	149,455 21
express and extra baggage	195,080 91	30,400 22	28,282 49	64,119 99	69,789 98
mails	85,731 79	23,561 19	8,504 79	23,209 43	40,553 50
other sources passenger department	—	71 73	—	—	60 56
Total earnings passenger department	2,446,512 38	717,322 98	566,912 12	1,344,396 99	1,451,857 46

From local freight	\$1,719,130 00	\$489,196 66	\$300,537 19	\$540,082 12	\$793,462 96
through freight †	1,869,708 88	716,757 10	322,858 61	265,377 99	194,580 72
other sources freight department	38,803 27	—	—	—	—
<i>Total earnings freight department</i>	3,627,642 15	1,205,953 76	623,395 80	805,460 11	988,043 68
TOTAL TRANSPORTATION EARNINGS	6,074,154 53	1,923,276 74	1,190,307 92	2,149,857 10	2,439,901 14
From rents for use of road	—	99,500 00	—	23,900 00	8,700 35
all other sources	353,308 83	57,196 78	20,564 59	42,508 35	37,376 41
TOTAL INCOME FROM ALL SOURCES	6,427,463 36	2,079,973 52	1,210,872 51	2,216,265 45	2,485,977 90
EXPENSES.					
Transportation expenses	\$3,432,705 22	\$1,357,101 12	\$756,825 00	\$1,258,624 34	\$1,451,442 80
Paid for taxes	291,119 36	101,414 27	49,557 45	96,131 14	39,749 81
TOTAL EXPENSES	3,723,824 58	1,458,515 39	806,382 45	1,354,755 48	1,491,192 61
NET INCOME, DIVIDENDS, &c.					
Net income	\$2,703,638 78	\$621,458 13	\$404,490 06	\$861,509 97	\$994,785 29
Rents	75,000 00	242,256 00	67,598 27	87,200 00	293,996 52
Interest accrued	470,000 00	99,462 08	173,800 50	246,447 12	543,481 71
Dividends earned	2,158,638 78	279,740 05	163,091 29	527,862 85	157,307 06
Per cent	10.79	6.22	5	7.54	3.10
Dividends declared	1,600,000 00	270,000 00	32,500 00*	420,000 00	—
Per cent	8.	6.	1.	6.	—
Balance for the year	558,638 78	9,740 05	130,591 29	107,862 85	157,307 06
Surplus last year	2,425,060 42	494,435 36	453,111 51	1,502,226 29	10,226,613 04d
Surplus Sept. 30, 1879	2,941,224 00	493,475 41	551,702 80	1,628,993 41	10,364,358 29d

* Also declared dividend of one per cent from surplus of last year.

† To and from other roads.

d Deficit.

	8.—BOSTON & ALBANY.—Con.	9.—FITCHBURG.— Con.	10.—BOSTON & LOWELL.—Con.	11.—BOSTON & MAINE.—Con.	12.—EASTERN.— Con.
MILEAGE, TRAFFIC, &c.					
Passenger-train mileage	1,366,103	679,680	567,340	957,498	1,028,719
Freight-train mileage	3,083,863	867,373	203,116	405,921	495,946
Total revenue train mileage	4,449,966	1,547,053	770,456	1,363,419	1,524,665
Switching-train mileage	370,741	184,634	232,513	213,472	468,307
Other train mileage	69,065	31,568	42,172	32,728	74,350
TOTAL TRAIN MILEAGE	4,889,772	1,763,255	1,045,141	1,609,619	2,067,322
Number season-ticket passengers	1,309,727	518,756	1,037,867	1,229,408	1,283,311
Number local passengers (including season)	4,173,883	2,075,170	2,232,124	4,503,406	4,436,094
Number through passengers †	1,025,277	151,835	219,626	68,769	98,654
Total number of passengers carried	5,199,160	2,227,005	2,451,750	4,572,175	4,534,748
Local passenger mileage	68,040,367	26,661,857	22,067,402	56,078,362	56,269,186
Through passenger mileage †	33,207,954	8,432,288	5,739,992	8,896,391	9,133,833
Total passenger mileage	101,248,321	35,094,145	27,807,394	64,974,753	65,403,019
Tons of local freight carried	1,324,191	410,143	344,302	436,955	706,729
Tons of through freight carried †	1,413,905	903,146	475,541	248,643	142,983
Total tons of freight carried	2,738,096	1,313,289	819,843	685,958	849,712
Local freight mileage	99,520,790	10,389,786	6,959,869	17,470,010	30,140,567
Through freight mileage †	225,964,009	82,442,854	11,662,243	14,864,285	14,855,527
Total freight mileage	325,484,799	92,832,640	18,622,112	32,334,295	44,996,094
Av. rate of fare per mile, local passengers	2.31 cents.	2.07 cents.	2.68 cents.	2.29 cents.	2.67 cents.
through passengers	2.25 "	2.07 "	1.83 "	1.72 "	1.63 "
season-ticket pass'grs	.97 "	.92 "	.97 "	.82 "	.95 "
ALL PASSENGERS	2.14 "	1.90 "	2.04 "	1.93 "	2.05 "
Av. rate of freight per mile, local freight	1.73 "	4.71 "	4.32 "	3.15 "	2.63 "
through freight	.83 "	.87 "	2.77 "	1.75 "	1.31 "

Passengers to Boston	1,977,464	798,701	1,145,974	1,712,388	1,577,311
from Boston	1,537,323	817,556	1,137,343	1,756,936	1,382,683
Season-ticket passengers to and from Boston	1,239,268	406,306	1,008,210	1,038,852	850,039
EQUIPMENT.					
Number of locomotives	243	77	45	79	94
of passenger cars	174	82	68	128	142
of parlor and sleeping cars	10	—	—	5	—
of mail, baggage and express cars	55	25	22	31	37
of freight cars (basis 8 wheels)	4,907	1,816	680	1,224	1,365
of other cars	528	97	—	134	26
GENERAL INFORMATION, &c.					
Total miles of road operated	323,660	189,120	86,260	202,200	281,996
Same in Massachusetts	267,030	179,750	86,260	84,700	118,016
Average number persons employed	4,017	1,374	837	1,517	1,758

† To and from other roads.

	13.—BOSTON & PROVIDENCE.	14.—NEW YORK & NEW ENGLAND.	15.—OLD COLONY.	16.—ASHBURNHAM.	17.—BOSTON, BARRE & GARDNER.
CAPITAL STOCK.					
Amount paid in	\$4,000,000 00	\$20,000,000 00*	\$6,733,800 00	\$30,000 00	\$871,001 73
Number of stockholders	1,667	344†	5,039	4	222
Stockholders in Massachusetts	1,330	304†	4,737	4	217
Amount of stock held in Massachusetts	\$3,295,900 00	\$5,869,800 00†	\$6,196,800 00	\$30,000 00	\$868,461 00
DEBT.					
Amount of funded debt	\$920,000 00	\$4,708,000 00	\$5,864,500 00	\$6,000 00	\$554,300 00
Amount of unfunded debt	207,254 35	459,291 76	632,419 15	73 65	260,719 53
TOTAL GROSS DEBT	1,127,254 35	5,167,291 76	6,496,919 15	6,073 65	815,019 53
PERMANENT INVESTMENTS.					
Construction	\$4,405,374 38	\$24,185,792 73	\$10,286,784 17	\$30,000 00	\$1,381,575 40
Equipment	207,400 00	1,108,410 00	1,191,319 08	6,000 00	155,962 59
Other property	637,215 55	—	1,492,882 54	—	1,461 67
Total permanent investments	5,249,989 93	25,294,202 73	12,970,985 79	36,000 00	1,538,999 66
Cash and cash assets	311,767 94	277,833 54	1,048,667 80	—	67,792 08
TOTAL PROPERTY AND ASSETS	5,561,757 87	25,572,036 27	14,019,653 59	36,000 00	1,606,791 74
REVENUE FOR THE YEAR.					
From local passengers	\$533,095 71	\$506,391 47	\$1,144,504 28	\$1,617 08	\$30,190 80
through passengers	162,074 07	281,825 48	349,263 96	—	25,091 20
express and extra baggage	29,600 81	57,121 81	93,706 93	173 95	4,153 90
mails	9,693 54	25,013 50	33,576 33	123 56	3,850 79
other sources passenger department	—	4,436 88	—	—	—
Total earnings passenger department	734,464 13	874,789 14	1,621,051 50	1,914 59	63,286 69

From local freight	\$238,983 92	\$487,213 40	\$795,743 14	\$1,387 45	\$34,029 24
through freight	185,195 51	540,895 87	346,155 30	—	63,357 24
other sources freight department	—	30,613 07	—	—	285 23
<i>Total earnings freight department</i>	424,179 43	1,058,722 34	1,141,898 44	1,387 45	97,671 71
TOTAL TRANSPORTATION EARNINGS	1,158,643 56	1,933,511 48	2,762,949 94	3,302 04	160,958 40
From rents for use of road	—	—	2,400 00	—	—
all other sources	19,594 73	38,024 95	97,225 30	—	1,689 25
TOTAL INCOME FROM ALL SOURCES	1,178,238 29	1,971,536 43	2,862,575 24	3,302 04	162,647 65
EXPENSES.					
Transportation expenses	\$722,443 17	\$1,429,391 31	\$2,055,683 47	\$3,086 02	\$122,768 91
Paid for taxes	60,152 60	17,791 19	91,922 59	15 74	1,037 50
TOTAL EXPENSES	782,695 77	1,447,182 50	2,147,606 06†	3,101 76	123,806 41
NET INCOME, DIVIDENDS, &c.					
Net income	\$395,542 52	\$524,353 93	\$714,969 18	\$200 28	\$38,841 24
Rents	10,917 27	59,400 66	243,048 60	—	7,200 00
Interest accrued	53,249 12	261,930 19	390,268 91	420 00	38,365 03
Dividends earned	331,376 13	203,023 08	81,651 77	—	—
Per cent	8.28	1.01	1.22	—	—
Dividends declared	260,000 00	—	—	—	—
Per cent	6.50	—	—	—	—
Balance for the year	71,376 13	203,023 08	81,651 77	219 72 ^d	6,733 79 ^d
Surplus last year	363,127 39	201,721 43	709,054 67	146 07	72,505 73 ^d
Surplus Sept. 30, 1879	434,503 52	404,744 51	788,934 44	73 65 ^d	79,229 52 ^d

* The amount of Berdell bonds, at which the capital stock was fixed under the terms of the mortgage. At the present time, bonds amounting to \$6,136,000 have been exchanged for stock.

† Includes expenses Wollaston accident, — \$348,453.14.

^d Deficit.

	13. — BOSTON & PROVIDENCE. — Con.	14. — NEW YORK & NEW ENGLAND. — Con.	15. — OLD COLONT. — Con.	16. — ASHBURNHAM. — Con.	17. — BOSTON. BARRE & GARDNER. — Con.
MILEAGE, TRAFFIC, &c.					
Passenger-train mileage	542,617	993,410	1,177,663	7,800	87,141
Freight-train mileage	221,442	555,782	593,687	—	48,573
Total revenue train mileage	764,059	1,549,192	1,771,350	7,800	135,714
Switching-train mileage	47,797	126,707	215,196	—	4,500
Other train mileage	—	59,084	30,362	—	—
TOTAL TRAIN MILEAGE	811,856	1,734,983	2,016,908	7,800	140,214
Number season-ticket passengers	1,213,579	814,300	1,103,434	—	3,102
Number local passengers (including season)	2,745,018	1,941,698	3,897,908	11,975	66,415
Number through passengers *	461,470	692,239	721,728	—	31,218
Total number passengers carried	3,206,488	2,633,937	4,619,636	11,975	97,633
Local passenger mileage	26,768,658	21,658,570	51,307,736	29,937	1,028,231
Through passenger mileage *	11,190,645	14,500,381	21,497,502	—	663,792
Total passenger mileage	37,959,303	36,158,951	72,805,238	29,937	1,692,023
Tons of local freight carried	253,048	375,864	734,549	2,436	29,671
Tons of through freight carried *	340,298	495,323	369,147	—	111,960
Total tons of freight carried	593,346	871,187	1,103,696	2,436	141,631
Local freight mileage	6,448,478	9,479,858	26,531,480	6,590	573,550
Through freight mileage *	12,257,309	27,174,811	15,918,886	—	2,751,015
Total freight mileage	18,705,787	36,654,669	42,450,366	6,590	3,324,565
Av. rate of fare per mile, local passengers	2.26 cents.	2.71 cents.	2.60 cents.	—	2.98 cents.
through passengers	1.56 "	1.94 "	1.60 "	—	3.78 "
season-ticket passengers, ...	1.10 "	.86 "	.80 "	—	1.69 "
ALL PASSENGERS	1.80 "	2.15 "	2.00 "	—	3.26 "
Av. rate of freight per mile, local freight	4.10 "	5.14 "	4.21 "	—	9.25 "
through freight	1.50 "	1.99 "	2.17 "	—	2.30 "

Passengers to Boston	1,200,770	511,100	1,515,246	-	-
from Boston	1,316,544	587,333	1,401,826	-	-
Season-ticket passengers to and from Boston	1,078,675	255,128	751,332	-	-
EQUIPMENT.					
Number of locomotives	46	78	109	1	7
of passenger cars	97	109	208	1	7
of parlor and sleeping cars	-	2	5	-	-
of mail, baggage and express cars	17	25	55	-	4
of freight cars (basis 8 wheels)	401	815	1,847	-	76
of other cars	291	257	-	-	21
GENERAL INFORMATION, &c.					
Total miles of road operated	67,752	284,870	453,960	2,500	52,530
Same in Massachusetts	57,331	107,510	437,770	2,500	38,530
Average number persons employed	711	1,972	1,953	3	125

* To and from other roads.

	18.—BOSTON CLINTON, FITCHBURG & NEW BEDFORD.	19.—CHESHIRE.	20.—CONNECTICUT RIVER.	21.—FALL RIVER.	22.—FALL RIVER, WARREN & PROVIDENCE.
CAPITAL STOCK.					
Amount paid in	\$3,047,700 00*	\$2,153,300 00	\$2,100,000 00	\$200,000 00	\$150,000 00
Number of stockholders	487	673	844	17	29
Stockholders in Massachusetts	479	500	673	16	12
Amount of stock held in Massachusetts	\$3,039,100 00	\$1,792,000 00	\$1,651,900 00	\$199,800 00	\$77,000 00
DEBT.					
Amount of funded debt	\$3,169,100 00†	\$831,000 00	—	\$200,000 00	\$300,000 00
Amount of unfunded debt	1,073,860 71	25,703 00	\$369,391 89	74,105 04	3,129 80
TOTAL GROSS DEBT	4,242,960 71	856,703 00	369,391 89	274,105 04	303,129 80
PERMANENT INVESTMENTS.					
Construction	\$5,369,603 27	\$2,395,268 94	\$2,396,037 63	\$445,663 69	\$310,747 60
Equipment	974,440 00	322,266 32	241,938 89	—	—
Other property	—	—	105,127 32	—	—
Total permanent investments	6,344,043 27	2,717,535 26	2,743,103 84	445,663 69	310,747 60
Cash and cash assets	719,938 86	326,276 44	337,146 93	9,230 14	3,418 76
TOTAL PROPERTY AND ASSETS	7,063,982 13	3,043,811 70	3,080,250 77	454,893 83	314,166 36
REVENUE FOR THE YEAR.					
From local passengers	\$26,964 04	\$30,939 96	\$185,279 50	\$20,127 81	\$315 92
through passengers	75,213 34	103,620 37	89,336 83	—	15,828 06
express and extra baggage	6,088 20	6,392 47	14,044 10	999 96	1,500 00
mails	2,994 47	7,738 60	11,429 15	641 24	452 68
other sources passenger department	2,775 00	—	—	—	—
Total earnings passenger department	114,038 05	148,691 40	300,089 58	21,769 01	18,096 66

From local freight	\$50,649 62	\$21,394 06	\$86,588 54	\$7,854 66	-
through freight.	134,277 65	323,317 76	226,632 88	-	\$5,935 62
other sources freight department	925 00	-	-	-	-
Total earnings freight department	185,852 27	344,711 82	313,221 42	7,854 66	5,935 62
TOTAL TRANSPORTATION EARNINGS.	299,890 32†	493,403 22	613,311 00	29,623 67	24,032 28
From rents for use of road.	236,321 99	-	-	-	-
all other sources	11,123 27	9,646 39	13,741 06	458 33	54 67
TOTAL INCOME FROM ALL SOURCES	547,335 58	503,049 61	627,052 06	30,082 00	24,086 95
EXPENSES.					
Transportation expenses	\$258,899 04	\$345,604 63	\$362,534 99	\$22,775 18	\$16,254 39
Paid for taxes	6,860 00	16,209 02	38,523 27	-	162 96
TOTAL EXPENSES	265,759 04	361,813 65	401,058 26	22,775 18	16,417 35
NET INCOME, DIVIDENDS, &c.					
Net income	\$281,576 54	\$141,235 96	\$225,993 80	\$7,306 82	\$7,669 60
Rents	27,723 69	51,000 00	13,922 38	-	-
Interest accrued	224,029 57	49,854 00	12,220 02	14,710 90	7,669 60
Dividends earned	29,823 28	40,381 96	199,851 40	-	-
Per cent	-	1.90	9.5	-	-
Dividends declared	-	21,000 00	168,000 00	-	-
Per cent	-	1.	8.	-	-
Balance for the year	29,823 28	19,381 96	31,851 40	7,408 08d	-
Surplus last year	95,678 41d	24,426 74	578,886 75	1,677 01d	138,963 44d
Surplus Sept. 30, 1879	226,678 58dd	33,808 70	610,858 88	19,211 21d	138,963 44d

* \$1,750,100, preferred. \$1,297,600, common.

† For four months; the balance of the year the road was operated by the Old Colony under lease.

‡ Includes \$525,000 unsold bonds, which are represented in cash assets.

d Deficits. dd Represents the difference between \$205,183.98, the deficit from operation to Jan. 1, 1879, and \$68,505.40, the surplus derived from eight months' lease to the Old Colony.

	18.—BOSTON, CLINTON, FITCHBURG & NEW BEDFORD. — Con. a	19.—CHESHIRE. — Con.	20.—CONNECTICUT RIVER. — Con.	21.—FALL RIVER. — Con.	22.—FALL RIVER, WARREN & PROVIDENCE. — Con.
MILEAGE, TRAFFIC, &c.					
Passenger-train mileage	115,480	125,544	263,244	15,484	15,650
Freight-train mileage	102,002	369,185	110,845	15,484	3,965
Total revenue train mileage	217,482	494,729	374,089	30,968	19,615
Switching-train mileage	41,793	35,080	22,561	—	—
Other train mileage	3,377	18,267	16,857	1,670	—
TOTAL TRAIN MILEAGE	262,652	548,076	413,507	32,638	19,615
Number season-ticket passengers	68,926	6,348	178,936	6,000	—
Number local passengers (including season)	138,635	57,851	890,913	32,150	1,950
Number through passengers †	126,670	67,337	107,133	—	91,017
Total number of passengers carried	265,305	125,188	998,046	32,150	92,967
Local passenger mileage	1,154,800	1,070,750	7,573,513	387,412	6,574
Through passenger mileage †	2,030,332	2,903,401	2,949,453	—	519,169
Total passenger mileage	3,185,132	3,974,151	10,522,966	387,412	525,743
Tons of local freight carried	41,041	23,148	77,781	21,147	—
Tons of through freight carried †	142,557	395,552	315,351	—	23,894
Total tons of freight carried	183,598	418,700	393,132	21,147	23,894
Local freight mileage	1,837,436	652,918	1,082,164	255,020	—
Through freight mileage †	5,606,809	22,683,429	7,850,952	—	214,417
Total freight mileage	7,444,245	23,336,347	8,933,116	255,020	214,417
Av. rate of fare per mile, local passengers	—	3.50 cents.	2.91 cents.	4.70 cents.	4.80 cents.
through passengers	—	3.57 "	3.03 "	—	3.00 "
season-ticket passengers	—	.32 "	.67 "	—	—
ALL PASSENGERS	—	3.31 "	2.61 "	4.70 "	3.00 "
Av. rate of freight per mile, local freight	—	7. "	8.01 "	5.50 "	—
through freight	—	1.42 "	3.60 "	—	2.76 "

EQUIPMENT.

Number of locomotives . . .	.	.	.	.	.	.	.	.	.
of passenger cars . . .	.	.	.	.	.	.	.	.	.
of parlor and sleeping cars . . .	.	.	.	.	.	.	.	.	.
of mail, baggage and express cars . . .	.	.	.	.	.	.	.	.	.
of freight cars (basis 8 wheels) . . .	.	.	.	.	.	.	.	.	.
of other cars . . .	.	.	.	.	.	.	.	.	.

GENERAL INFORMATION, &c.

Total miles of road operated . . .	.	.	.	.	.	.	.	.	.
Same in Massachusetts . . .	.	.	.	.	.	.	.	.	.
Average number persons employed . . .	.	.	.	.	.	.	.	.	.

	30	19	K	K
	22	33	-	-
	-	-	-	-
	10	5	-	-
	404	359	-	-
	15	2	-	-
	64,010	79,850	12,250	5,794
	21,200	55,850	12,250	3,662
	329	334	13	14

*† Leased to the Old Colony and included in the equipment of that road.

† To and from other roads.

K Hires its equipment from Old Colony R.R. Co.
 a These statistics are for four months; the road for the balance of the year was operated by the Old Colony R.R. Co.

	23.—HANOVER BRANCH.	24.—HOUSATONIC OF CONNECTICUT.*	25.—NASHUA & LOWELL.	26.—NEW HAVEN & NORTHAMPTON.	27.—NEW LONDON NORTHERN.**
CAPITAL STOCK.					
Amount paid in	\$123,950 00	—	\$800,000 00	\$2,460,000 00	\$1,500,000 00
Number of stockholders	108	—	439	338	297
Stockholders in Massachusetts	107	—	205	63	33
Amount of stock held in Massachusetts	\$123,700 00	—	\$535,000 00	\$245,700 00	\$275,500 00
DEBT.					
Amount of funded debt	\$30,000 00	—	\$200,000 00	\$2,324,000 00	\$687,500 00
Amount of unfunded debt	141 00	—	243,904 00	140,163 37	152,274 54
TOTAL GROSS DEBT	30,141 00	—	443,904 00	2,464,163 37	839,774 54
PERMANENT INVESTMENTS.					
Construction	\$194,826 66	—	\$661,015 51	\$4,035,257 89	\$2,059,502 53
Equipment	60,562 69	—	217,516 75	796,515 66	236,429 63
Other property	—	—	295,517 95	83,375 00	65,000 00
Total permanent investments	255,389 35	—	1,174,049 91	4,915,148 55	2,360,932 16
Cash and cash assets	5,749 02	—	242,193 39	118,313 95	73,061 42
TOTAL PROPERTY AND ASSETS	261,138 37	—	1,416,243 30	5,033,462 50	2,433,993 58
REVENUE FOR THE YEAR.					
From local passengers	\$4,683,28	\$34,473 43	\$79,121 53	\$92,438 97	\$90,770 97
through passengers	8,102 15	31,212 30	74,922 04	32,623 20	71,246 02
express and extra baggage	3,900 88	4,440 00	8,218 84	12,000 00	7,268 23
mails	150 00	4,110 77	5,533 38	11,264 45	6,790 42
other sources passenger department	580 87	—	9,972 46	—	—
Total earnings passenger department	17,417 18	74,236 50	177,708 25	148,326 62	176,075 64

From local freight	\$4,078 68	\$57,840 50	\$52,518 06	\$275,170 92	\$110,909 24
through freight	6,381 81	73,139 50	145,798 09	137,598 84	183,117 05
other sources freight department	—	15,891 92	921 77	25,500 12	—
<i>Total earnings freight department</i>	10,460 49	146,871 92	199,237 92	438,269 88	294,026 29
TOTAL TRANSPORTATION EARNINGS	27,877 67	221,108 42	377,006 17	586,596 50	470,101 93
From rents for use of road	—	—	—	—	—
all other sources	—	490 34	17,381 29	1,684 00	30,389 93
TOTAL INCOME FROM ALL SOURCES	27,877 67	221,598 76	394,387 46	588,280 50	500,491 86 ^s
EXPENSES.					
Transportation expenses	\$14,448 68	\$129,431 64	\$208,212 89	\$349,419 87	\$310,618 04
Paid for taxes	513 69	3,765 05	11,967 02	16,654 46	18,925 66
TOTAL EXPENSES	14,962 37	133,196 69	220,179 91	366,074 33	329,543 70 ^s
NET INCOME, DIVIDENDS, &c.					
Net income	\$12,915 30	—	\$174,205 55	\$222,206 17	\$172,815 73 ^s
Rents	—	—	49,257 44	18,053 57	—
Interest accrued	1,650 00	—	21,712 25	162,555 77	45,125 00
Dividends earned	11,265 30	—	103,237 86	41,596 83	127,690 73
Per cent	9.	—	12.9	1.69	8.5
Dividends declared	3,714 00	—	48,000 00	—	90,000 00
Per cent	3.	—	6.	—	6.
Balance for the year	7,551 30	—	55,237 86 [†]	41,596 83	37,690 73
Surplus last year	99,496 07	—	90,763 73	67,702 30	58,106 71
Surplus Sept. 30, 1879	107,047 37	—	172,339 30	109,299 13	94,219 04

* Operating the Berkshire, Stockbridge & Pittsfield and West Stockbridge Railroads.

^s Company's account: amount derived from rent, &c. [†] Subject to a charge of \$28,560.00 for rent due the Peterborough Railroad Company, suit for which is now pending in United States Court, testing the validity of the lease.

** Leased to J. Gregory Smith *et al.*

§ Lessees' account.

	23.—HANOVER BRANCH.—Con.	24.—HOUSATONIC OF CONNECTICUT.* —Con.	25.—NASHUA & LOWELL.—Con.	26.—NEW HAVEN & NORTHAMPTON. —Con.	27.—NEW LONDON NORTHERN.*—Con.
MILEAGE, TRAFFIC, &C.					
Passenger-train mileage	11,420	84,093	162,749	211,121	229,655
Freight-train mileage	11,420	91,982	78,884	149,266	232,004
<i>Total revenue train mileage</i>	22,840	176,075	241,633	360,387	461,659
Switching-train mileage	—	—	61,461	10,260	—
Other train mileage	—	9,490	6,981	15,181	1,635
TOTAL TRAIN MILEAGE	22,840	185,565	310,075	385,828	463,294
Number season-ticket passengers	8,740	—	70,710	—	10,316
Number local passengers (including season)	20,690	70,134	269,000	225,533	159,304
Number through passengers†	53,270	23,380	230,069	53,091	91,256
<i>Total number of passengers carried</i>	73,960	93,514	499,069	278,624	250,560
Local passenger mileage	82,760	1,176,920	3,043,800	3,565,078	2,785,469
Through passenger mileage†	213,080	1,169,000	3,566,325	1,162,779	1,142,052
<i>Total passenger mileage</i>	295,840	2,345,920	6,610,125	4,727,857	3,927,521
Tons of local freight carried	4,216	69,523	48,070	192,216	81,420
Tons of through freight carried†	13,044	109,450	474,090	118,964	206,434
<i>Total tons of freight carried</i>	17,260	178,973	522,160	311,180	287,854
Local freight mileage	16,800	1,434,577	866,037	9,349,594	3,039,094
Through freight mileage†	52,176	3,279,798	6,867,323	5,593,204	9,598,863
<i>Total freight mileage</i>	69,036	5,714,375	7,733,360	14,942,798	12,637,957
Av. rate of fare per mile, local passengers	3.5 cents.	3.63 cents.	3.78 cents.	2.6 cents.	3.75 cents.
through passengers	2.7 “	2.67 “	2.12 “	2.8 “	—
season-ticket passengers	1.26 “	—	.91 “	—	.86 “
ALL PASSENGERS	2.10 “	2.80 “	2.33 “	2.64 “	—
Av. rate of freight per mile, local freight	4.3 “	15.9 “	10.9 “	2.94 “	3.6 “
through freight	4.1 “	2.23 “	2.12 “	2.44 “	1.9 “

EQUIPMENT.

Number of locomotives	2	18	20	22
passenger cars	4	17	18	15
parlor and sleeping cars	—	—	—	—
mail, baggage and express cars	2	6	8	9
freight cars (basis 8 wheels)	18	288	416	276
other cars	—	4	41	—

GENERAL INFORMATION, &c.

Total miles of road operated	8	53,660	109,330	100
Same in Massachusetts	8	22,410	42,940	44
Average number persons employed	22	247	354	425

* ** See notes on p. 167.

† To and from other roads.

	28.—NEW YORK, NEW HAVEN & HARTFORD.	29.—NORWICH & WORCESTER.	30.—PROVIDENCE & WORCESTER.	31.—SPRINGFIELD & NORTHEASTERN.*	32.—WORCESTER & NASHUA.
CAPITAL STOCK.					
Amount paid in	\$15,500,000 00	\$2,604,400 00	\$2,000,000 00	\$405,000 00	\$1,789,800 00
Number of stockholders	3,215	683	792	23	990
Stockholders in Massachusetts	407	554	347	22	812
Amount of stock held in Massachusetts	\$2,188,900 00	\$1,943,100 00	\$981,600 00	\$401,400 00	\$1,547,200 00
DEBT.					
Amount of funded debt	—	\$400,000 00	\$1,176,000 00	—	\$1,000,000 00
Amount of unfunded debt	\$259,717 18	8,664 08	619,576 76	\$15,011 83	56,882 16
TOTAL GROSS DEBT	259,717 18	408,664 08	1,795,576 76	15,011 83	1,056,882 16
PERMANENT INVESTMENTS.					
Construction	\$12,889,584 40	\$3,224,229 64	\$2,932,380 38	\$379,500 00	\$2,121,789 86
Equipment	2,154,454 71	179,750 67	677,275 00	25,500 00	390,086 03
Other property	688,962 98	273,037 08	—	—	—
Total permanent investments	15,733,002 09	3,677,017 39	3,609,655 38	405,000 00	2,511,875 89
Cash and cash assets	2,157,012 37	185,284 52	315,834 12	24,994 02	603,264 17
TOTAL PROPERTY AND ASSETS	17,890,014 46	3,862,301 91	3,925,489 50	429,994 02	3,115,140 06
REVENUE FOR THE YEAR.					
From local passengers	\$1,368,240 46	\$97,428 76	\$261,051 64	\$7,559 82	\$73,953 45
through passengers †	774,011 66	81,013 88	63,503 97	839 98	94,801 82
express and extra baggage	174,584 27	14,316 20	11,979 56	300 50	7,905 16
mails	103,644 98	4,818 08	3,967 55	670 65	13,990 24
other sources passenger department	—	—	—	—	3,240 04
Total earnings passenger department	2,420,481 37	197,576 92	340,502 72	9,370 95	193,890 71

From local freight	\$587,399 92	\$288,082 90	\$398,068 59	\$6,106 28	\$5,474 04
through freight †	884,438 76	180,931 69	175,904 80	9,158 91	203,218 02
other sources freight department	20,422 70	—	—	—	10,499 11
<i>Total earnings freight department</i>	1,492,261 38	469,014 59	573,973 39	15,265 19	279,191 17
TOTAL TRANSPORTATION EARNINGS	3,912,742 75	666,591 51	914,476 11	24,636 14	473,081 88
From rents for use of road	—	—	—	1,918 50	—
all other sources	20,852 39	48,302 73	5,376 14	—	20,912 60
TOTAL INCOME FROM ALL SOURCES	3,933,595 14	714,894 24	919,852 25	26,554 64	493,994 48
EXPENSES.					
Transportation expenses	\$2,020,914 83	\$356,371 29	\$522,277 77	\$14,625 40	\$297,625 13
Paid for taxes	221,020 50	34,999 43	28,149 28	2 00	9,902 50
TOTAL EXPENSES	2,241,935 33	391,371 72	550,427 05	14,627 40	307,587 63
NET INCOME, DIVIDENDS, &C.					
Net income	\$1,691,659 81	\$323,522 52	\$369,425 20	\$11,927 24	\$186,406 85
Rents	130,000 00	36,000 00	19,080 00	1,945 05	74,274 00
Interest accrued	—	24,029 42	108,753 07	—	60,995 62
Dividends earned	1,561,659 81	263,493 12	241,592 13	9,982 19	51,137 23
Per cent	10.08	10.15	12.07	2.25	2.85
Dividends declared	1,550,000 00	259,780 00	100,000 00	—	—
Per cent	10.	10.	5.	—	—
Balance for the year	11,659 81	3,713 10	141,592 13	9,982 19	51,137 23
Surplus last year	2,118,637 47	845,524 73	110,584 61	—	229,766 98
Surplus Sept. 30, 1879	2,130,297 28	849,237 83	129,912 74	9,982 19	268,458 00

* Report for three months only.

† To and from other roads.

	28.—NEW YORK, NEW HAVEN & HARTFORD.—Con.	29.—NORWICH & WORCESTER.—Con.	30.—PROVIDENCE & WORCESTER. —Con.	31.—SPRINGFIELD & NORTHEASTERN.* —Con.	32.—WORCESTER & NASHUA.—Con.
MILEAGE, TRAFFIC, &C.					
Passenger-train mileage	1,332,291	195,196	229,676	17,280	190,839
Freight-train mileage	643,029	239,471	219,862	8,640	183,559
Total revenue train mileage	1,975,320	434,667	449,538	25,920	374,398
Switching-train mileage	255,380	23,457	161,539	1,500	3,139
Other train mileage	59,571	11,821	9,523	600	28,929
TOTAL TRAIN MILEAGE	2,290,271	469,945	620,600	28,020	406,466
Number season-ticket passengers	1,044,784	22,362	103,624	1,714	48,316
Number local passengers (including season)	3,128,499	221,806	1,581,036	15,572	209,382
Number through passengers †	459,400	158,420	58,090	1,096	113,543
Total number of passengers carried	3,587,899	380,226	1,639,126	16,668	322,925
Local passenger mileage	72,580,507	3,128,397	11,225,477	209,246	2,859,217
Through passenger mileage †	30,532,936	5,224,600	2,527,915	22,773	3,309,654
Total passenger mileage	103,113,443	8,352,997	13,753,392	232,019	6,168,871
Tons of local freight carried	454,700	168,149	347,505	7,065	76,814
Tons of through freight carried †	754,930	235,919	328,084	8,832	305,349
Total tons of freight carried	1,209,630	404,068	675,589	15,897	382,163
Local freight mileage	14,578,611	6,292,616	5,015,202	94,989	2,436,812
Through freight mileage †	48,608,868	8,861,127	14,271,612	151,399	9,686,632
Total freight mileage	63,187,479	15,153,743	19,286,814	246,388	12,123,444
Av. rate of fare per mile, local passengers	2.76 cents.	3.2 cents.	2.44 cents.	3.14 cents.	3.81 cents.
through passengers	2.73 "	1.55 "	3.20 "	2.09 "	2.86 "
season-ticket passengers, ...	.66 "	.90 "	.68 "	1.30 "	.76 "
ALL PASSENGERS	2.26 "	2.13 "	2.37 "	3.01 "	2.90 "
Av. rate of freight per mile, local freight	5.18 "	4.57 "	3.28 "	6.20 "	2.69 "
through freight	1.85 "	2.04 "	2.46 "	—	2.10 "

EQUIPMENT.					
Number of locomotives	94	20	29	5	20
passenger cars	184	10	30	5	19
parlor and sleeping cars	18	-	-	-	3
mail, baggage and express cars	60	7	11	3	8
freight cars (basis 8 wheels)	1,375	573	817	36	367
other cars	8	1	3	-	-
GENERAL INFORMATION, &C.					
Total miles of road operated	152,300	66,400	66,840	48,500	94,500
Same in Massachusetts	5,870	17,400	42,440	48,500	39,600
Average number persons employed	1,954	420	596	74	310

* Report for three months only.

† To and from other roads.

NARROW GAUGE ROADS.	33.—BOSTON, REVERE BEACH & LYNN.	34.—BOSTON, WINTHROP & POINT SHIRLEY.	35.—GRAFTON CENTRE.	36.—MARTHA'S VINEYARD.	37.—WORCESTER & SHREWSBURY.
CAPITAL STOCK.					
Amount paid in	\$349,200 00	\$19,450 00	\$29,830 00	\$40,000 00	\$36,825 00
Number of stockholders	216	38	56	23	51
Stockholders in Massachusetts	210	34	56	22	51
Amount of stock held in Massachusetts	\$344,600 00	\$13,850 00	\$29,830 00	\$37,700 00	\$36,700 00
DEBT.					
Amount of funded debt	\$138,000 00	\$18,000 00	\$10,000 00	\$36,000 00	\$15,000 00
Amount of unfunded debt	142,477 58	3,443 69	3,041 25	2,342 00	73 93
TOTAL GROSS DEBT	280,477 58	21,443 69	13,041 25	38,342 00	15,073 93
PERMANENT INVESTMENTS.					
Construction	\$418,229 30	\$38,870 20	\$39,245 98	\$91,247 43	\$34,804 52
Equipment	94,369 67	1,800 00	4,275 33	14,031 00	20,281 17
Other property	154,453 11	—	—	3,501 63	—
Total permanent investments	667,052 08	40,670 20	43,521 31	108,780 06	55,085 69
Cash and cash assets	12,183 19	—	710 61	1,072 07	712 51
TOTAL PROPERTY AND ASSETS	679,235 27	40,670 20	44,231 92	109,852 13	55,798 20
REVENUE FOR THE YEAR.					
From local passengers	\$128,163 42	—	\$2,646 75	\$4,573 03	\$10,473 16
through passengers†	3,299 31	\$4,634 21§	—	—	—
express and extra baggage	—	—	452 85	41 60	—
mails	—	—	360 00	25 00	—
other sources	1,967 61	511 75	1,234 49*	279 01*	—
TOTAL INCOME FROM ALL SOURCES	133,430 34	5,145 96	4,694 09	4,918 64	10,473 16
EXPENSES.					
Transportation expenses	\$86,858 79	\$5,989 93	—	\$4,374 27	\$8,814 45
Paid for taxes	3,576 79	34 89	—	375 70	148 35
TOTAL EXPENSES	90,435 58	6,024 82	\$3,485 24	4,749 97	8,962 80

NET INCOME, DIVIDENDS, &c.					
Net income	\$42,994 76	\$878 86 <i>d</i>	\$1,208 85	\$168 67	\$1,310 36
Rents	—	—	—	—	—
Interest accrued	19,388 24	1,509 64	583 00	2,315 25	1,107 96
Dividends declared	20,952 00	—	—	—	—
Per cent	6	—	—	—	—
Balance for the year	2,654 52	2,388 50 <i>d</i>	625 85	2,146 58	402 40
Surplus last year	60,011 48	1,703 16	734 82	34,579 48	3,496 87
Surplus Sept. 30, 1879	49,557 69	223 49 <i>d</i>	1,360 67	31,510 13	3,899 27
MILEAGE, TRAFFIC, &c.					
Passenger-train mileage	103,787	19,685	14,085	5,959	30,000
Other train mileage	7,365	1,132	—	—	—
TOTAL TRAIN MILEAGE	111,152	20,817	14,085	5,959	30,000
Number season-ticket passengers	102,882	23,160	—	—	—
Number local passengers (including season)	751,764	23,160	21,318	20,423	116,368
Number through passengers †	29,077	44,790	—	—	—
Total number of passengers carried	780,841	67,950	21,318	20,423	116,368
Local passenger mileage	4,854,466	—	63,954	163,381	314,194
Through passenger mileage †	76,738	101,925	—	—	—
Total passenger mileage	4,932,204	101,925	63,954	163,381	314,194
EQUIPMENT.					
Number of locomotives	5	1	1	1	4
passenger cars	23	2	1	3	6
mail, baggage and express cars	—	—	—	1	—
freight cars (basis 8 wheels)	4	—	—	—	—
other cars	19	—	1	—	—
GENERAL INFORMATION, &c.					
Total miles of road operated	8.8	2.55	3	8.780	2.7
Same in Massachusetts	8.8	2.55	3	8.780	2.7
Average number persons employed	70	6	2	10	6

d Deficits.

* From freight carried.

† To and from other roads.

§ Passengers are all carried to and from the B., R. B. & L. R.R.

LEASED ROADS.*		38.—ATTLEBOROUGH BRANCH. ¹	39.—BERKSHIRE. ²	40.—FRAMINGHAM & LOWELL. ³	41.—HOLYOKE & WESTFIELD. ⁴	42.—HOPKINTON. ⁵
LIABILITIES.						
Capital stock paid in	.	\$131,700 00	\$600,000 00	\$512,096 39	\$260,000 00	\$165,100 00
Amount of funded debt	.	—	—	750,000 00	260,000 00	125,400 00
Amount of unfunded debt	.	—	245 07	395,861 66	—	15,593 16
Surplus Sept. 30, 1879	.	389 96	13,747 71	248,322 80 ^d	4,891 17	1,642 06 ^d
TOTAL LIABILITIES	.	132,089 96	613,992 78	1,657,958 05	524,891 17	306,093 16
ASSETS.						
Construction	.	\$130,706 73	\$600,000 00	\$1,227,386 56	\$522,268 89	\$292,526 10
Other property	.	1,350 00	6,000 00	182,062 00	—	—
Cash and cash assets	.	33 23	7,992 78	186 69	2,622 28	11,925 00
TOTAL PROPERTY AND ASSETS	.	132,089 96	613,992 78	1,409,635 25	524,891 17	304,551 10
INCOME, EXPENSES, & C., FOR THE YEAR.						
Total income from all sources	.	\$9,255 13	\$42,585 17	\$22,868 64	\$17,807 92	\$7,500 00
Total expenses	.	—	6,644 80	352 41	428 45	—
Net income	.	9,255 13	35,940 37	22,516 23	17,379 47	7,500 00
Interest accrued	.	—	—	55,159 17	15,800 00	8,228 00
Dividends declared	.	9,219 00	35,792 70	—	—	—
Per cent	.	7.	5.96	—	—	—
Surplus for the year	.	36 13	147 67	32,642 94 ^d	1,579 47	728 00 ^d

* Leased to and operated by the ¹ Boston & Providence; ² Housatonic of Connecticut; ³ Old Colony; ⁴ New Haven & Northampton; ⁵ Providence & Worcester.
^d Deficit.

LEASED ROADS.*		43.—LOWELL & ANDOVER. ¹	44.—MIDDLESEX CENTRAL. ²	45.—MILFORD & WOONSOCKET. ³	46.—MONADNOCK. ⁴	47.—NASHUA, ACTON & BOSTON. ⁵
LIABILITIES.						
Capital stock paid in . . .	.	\$500,000 00	\$280,000 00	\$82,525 00	\$197,926 73	\$500,000 00
Funded debt . . .	.	190,000 00	—	19,000 00	72,000 00	495,856 36
Unfunded debt . . .	.	—	—	—	15,578 50	304,269 70
Surplus Sept. 30, 1879 . . .	.	65,864 95	66,144 35	14,943 14	105,190 92	240,387 89 <i>d</i>
TOTAL LIABILITIES . . .	.	755,864 95	346,144 35	116,468 14	390,696 15	1,300,126 06
ASSETS.						
Construction . . .	.	\$754,769 49	\$340,821 50	\$116,197 10	\$365,771 47	\$1,057,031 20
Other property . . .	.	—	—	—	23,090 00	—
Cash and cash assets . . .	.	1,095 46	5,322 85	271 04	1,834 68	2,756 97
TOTAL PROPERTY AND ASSETS . . .	.	755,864 95	346,144 35	116,468 14	390,696 15	1,059,788 17
INCOME, EXPENSES, &C., FOR THE YEAR.						
Total income . . .	.	\$52,504 20	\$15,000 00	\$3,480 00	\$11,103 40	\$11,000 00
Total expenses . . .	.	173 29	665 65	151 51	163 93	—
Net income . . .	.	52,330 91	14,334 35	3,328 49	10,939 47	11,000 00
Interest accrued . . .	.	11,472 15	—	1,330 00	5,950 23	33,621 27
Dividends declared . . .	.	35,000 00	15,000 00	—	4,108 00	—
Per cent . . .	.	⁷	⁶	—	²	—
Balance for the year . . .	.	5,858 76	665 65 <i>d</i>	1,998 49	881 24	22,621 27 <i>d</i>

* These roads are operated by the ¹ Boston & Maine; ² Boston & Lowell; ³ Providence & Worcester; ⁴ Boston, Barre & Gardner; ⁵ Concord of New Hampshire.
d Deficit.

LEASED ROADS.*		48.—NEWBURYPORT CITY. ¹	49.—NORTH BROOKFIELD. ²	50.—PITTSFIELD & NORTH ADAMS. ²	51.—RHODE ISLAND & MASSACHUSETTS. ³	52.—SPRINGFIELD & NEW LONDON. ⁴
LIABILITIES.						
Capital stock paid in	.	\$97,000 00	\$100,000 00	\$450,000 00	\$100,000 00	\$198,145 00
Funded debt	.	25,000 00	—	—	—	—
Unfunded debt	.	—	—	—	12 84	52 00
Surplus Sept. 30, 1879	.	11,656 00	5,418 74	—	8,873 46	5,985 53
TOTAL LIABILITIES	.	133,656 00	105,418 74	450,000 00	108,886 30	204,182 53
ASSETS.						
Construction	.	\$121,928 33	\$105,293 39	\$438,752 57	\$108,723 05	\$187,455 52
Other property	.	—	75 00	11,247 43	—	9,998 00
Cash and cash assets	.	11,727 67	50 35	—	163 25	6,729 01
TOTAL PROPERTY AND ASSETS	.	133,656 00	105,418 74	450,000 00	108,886 30	204,182 53
INCOME, EXPENSES, &C., FOR THE YEAR.						
Total income	.	\$7,064 77	\$2,462 66	\$22,500 00	\$7,200 00	\$7,505 00
Total expenses	.	881 61	15 17	—	5 00	1,005 55
Net income	.	6,183 16	2,447 49	22,500 00	7,195 00	6,499 45
Interest accrued	.	1,750 00	—	—	—	—
Dividends declared	.	3,880 00	2,000 00	22,500 00	3,000 00	6,023 50
Per cent	.	4.	2.	5.	3.	3.50
Balance for the year	.	553 16	447 49	—	4,195 00	475 95

* These roads are operated by the ¹ Eastern; ² Boston & Albany; ³ New York & New England; ⁴ Connecticut Central.

LEASED ROADS.*		53. — STOCKBRIDGE & PITTSFIELD. ¹	54. — STONY BROOK. ²	55. — VERMONT & MASSACHUSETTS. ³	56. — WARE RIVER. ⁴	57. — WEST AMESBURY BRANCH. ⁵
LIABILITIES.						
Capital stock paid in	.	\$448,700 00	\$300,000 00	\$3,050,000 00	\$750,000 00	\$57,000 00
Funded debt	.	—	—	700,000 00	—	57,000 00
Unfunded debt	.	234 45	—	7,479 80	365,163 82	203 00
Surplus Sept. 30, 1879	.	2,715 51	3,348 21	38,802 28	44,528 34	137 46
TOTAL LIABILITIES	.	451,649 96	303,348 21	3,796,282 08	1,159,692 16	114,340 46
ASSETS.						
Construction	.	\$448,700 00	\$276,601 19	\$3,288,328 01	\$1,115,163 82	\$114,000 00
Other property	.	2,550 00	25,492 38	476,310 60	—	—
Cash and cash assets	.	399 96	1,254 64	31,643 47	44,528 34	340 46
TOTAL PROPERTY AND ASSETS	.	451,649 96	303,348 21	3,796,282 08	1,159,692 16	114,340 46
INCOME, EXPENSES, &C., FOR THE YEAR.						
Total income	.	\$31,647 00	\$18,796 32	\$174,600 00	\$55,177 96	\$5,700 00
Total expenses	.	4,862 40	158 95	3,000 00	—	164 75
Net income	.	26,784 60	18,637 37	171,600 00	55,177 96	5,535 25
Interest accrued	.	55 90	—	—	—	3,990 00
Dividends declared	.	26,711 08	18,000 00†	171,600 00	52,500 00	1,567 50
Per cent	.	5.95	6.	6.	7.	2.75
Balance for the year	.	17 62	637 37	—	2,677 96	22 25d

* These roads are operated by the ¹Housatonic of Connecticut; ²Nashua & Lowell; ³Fitchburg; ⁴Boston & Albany; ⁵Boston & Maine.
† Extra dividend of one per cent also paid from surplus, Nov. 1, 1878.

d Deficit.

LEASED ROADS.*		58. — WEST STOCK-BRIDGE. ¹	59. — UNION FREIGHT. ²	60. — TROY & GREENFIELD. ³	61. — DANVERS. ⁴	62. — DORCHESTER & MILTON. ⁵
LIABILITIES.						
Capital stock paid in	.	\$39,600 00	\$300,000 00	—	\$67,500 00	\$73,340 00
Funded debt	.	—	—	—	150,000 00	—
Unfunded debt	.	—	—	—	26,956 02	58,448 07
Surplus Sept. 30, 1879	.	1,113 52	2,072 25	—	—	4,584 70
TOTAL LIABILITIES	.	40,713 52	302,072 25	—	244,456 02	136,372 77
ASSETS.						
Construction	.	\$39,600 00	\$264,344 83	—	\$244,456 02	\$136,372 77
Other property	.	400 00	13,000 00	—	—	—
Cash and cash assets	.	713 52	24,727 42	—	—	—
TOTAL PROPERTY AND ASSETS	.	40,713 52	302,072 25	—	244,456 02	136,372 77
INCOME AND EXPENSES FOR THE YEAR.						
Total income	.	\$1,860 83	\$19,723 19	\$224,865 14	†	†
Total expense	.	290 16	153 50	106,819 90	—	—
Net income	.	1,570 67	19,569 69	117,545 24†	—	—
Interest accrued	.	—	—	—	—	—
Dividend declared	.	1,584 00	12,000 00	—	—	—
Per cent	.	4.	4.	—	—	—
Balance for the year	.	13 33d	7,569 69	—	—	—

d Deficits.

* These roads are operated by the ¹ Housatonic of Conn.; ² Old Colony; ³ Fitchburg.

† These roads are virtually owned by the ⁴ Boston & Maine; ⁵ Old Colony; their earnings and expenses are included in the reports of those roads.

‡ Of this amount \$34,750.75 was retained by the Fitchburg Railroad Company for arbitration.

	63.—HORN POND BRANCH. ¹	64.—LANCASTER. ²	65.—LEE & HUD- SON. ²	66.—MASSACHU- SETTS CENTRAL. ²	67.—NEWBURY- PORT. ³
LIABILITIES.					
Capital stock paid in	\$2,000 00	\$124,920 00	\$235,284 99	\$1,795,705 78	\$220,340 02
Funded debt	—	47,000 00	12,633 50	1,346,000 00	300,000 00
Unfunded debt	—	58,528 48	1,607 50	26,494 02	77,046 31
Surplus Sept. 30, 1879	13,238 46	—	—	—	—
TOTAL LIABILITIES	15,238 46	230,448 48	249,525 99	3,168,199 80	597,386 33
ASSETS.					
Construction	\$15,238 46	\$230,448 48	\$249,521 76	\$3,096,642 62	\$597,386 33
Other property	—	—	—	—	—
Cash and cash assets	—	—	4 23	71,557 18	—
TOTAL PROPERTY AND ASSETS	15,238 46	230,448 48	249,525 99	3,168,199 80	597,386 33

¹ Leased to the Boston & Lowell.² Roads partially constructed.
³ This road is virtually owned by the Boston & Maine, and its earnings and expenses are included in the report of that road.

	68.—LEE & NEW HAVEN. ¹	69.—OCEAN TER- MINAL. ¹	70.—SPENCER. ²	71.—BOSTON & MYSTIC VALLEY. ³
LIABILITIES.				
Capital stock paid in	\$86,923 72	\$2,000 00	\$50,000 00	—
Funded debt	—	—	—	—
Unfunded debt	24,572 33	—	11,251 08	—
Surplus Sept. 30, 1879	—	—	—	—
TOTAL LIABILITIES	111,496 05	2,000 00	61,251 08	—
ASSETS.				
Construction	\$111,496 05	\$330 52	\$61,251 08	—
Other property	—	—	—	—
Cash and cash assets	—	1,669 48	—	—
TOTAL PROPERTY AND ASSETS	111,496 05	2,000 00	61,251 08	—

¹ Roads partially constructed.² Completed this year, and now leased to the Boston & Albany.
³ This road is in a state of bankruptcy. For particulars in regard to it, see Tenth Annual Report, pages 363-369.

COMPARISON OF RETURNS

1878 with 1879,

AND

SUMMARY TAKEN FROM RETURNS

OF

1873-1874-1875-1876-1877-1878-1879.

Summary taken from the Returns of 1878 and 1879.

	1878.	1879.	Increase.	Decrease.
<i>Roadway.</i>				
	Miles.	Miles.	Miles.	Miles.
Length of road and branches . . .	2,491.665	2,625.898	135.233	-
in Massachusetts, . . .	1,850.290	1,861.823	11.533	-
Length of double track . . .	639.646	637.496	-	2.150
in Massachusetts, . . .	452.738	450.718	-	2.020
Length of sidings . . .	798.965	886.592	87.627	-
in Massachusetts, . . .	599.948	650.383	50.335	-
Total length as single track . . .	3,930.276	4,149.986	219.710	-
in Massachusetts, . . .	2,902.976	2,962.924	59.948	-
Length of steel rail in track . . .	1,517.004	1,696.082	179.078	-
Length of iron rail in track . . .	2,413.272	2,453.904	40.632	-
Total miles of road operated . . .	2,745.613	2,909.023	163.410	-
in Massachusetts, . . .	1,823.500	1,841.510	18.010	-
Stations on roads owned . . .	986	1,094	108	-
in Massachusetts, . . .	782	833	51	-
Railroad crossings at grade . . .	39	39	-	-
over grade . . .	14	14	-	-
under grade . . .	14	14	-	-
Highway crossings at grade . . .	2,043	2,151	108	-
protected . . .	458	491	33	-
unprotected . . .	1,585	1,660	75	-
<i>Assets.</i>				
Construction	\$144,484,189 70	\$147,860,583 71	\$3,376,394 01	-
Equipment	15,466,694 15	16,356,112 58	889,418 33	-
Lands	3,081,199 94	3,761,927 94	680,728 00	-
Stocks	2,388,766 27	3,602,431 65	1,213,665 38	-
Bonds	500,805 43	566,155 43	65,350 00	-
Other property	3,632,082 84	983,328 26	-	\$2,648,754 58
Total permanent investments . . .	\$169,553,738 33	\$173,130,539 57	\$3,576,801 24	-
Cash	2,327,303 63	3,169,880 11	842,576 48	-
Materials and supplies	3,491,674 58	2,561,573 87	-	\$930,100 71
Sinking fund	648,728 44	1,028,312 62	379,584 18	-
Other cash assets	4,989,395 07	5,364,200 08	374,805 01	-
Total cash and cash assets . . .	\$11,457,101 72	\$12,123,966 68	\$666,864 96	-
Profit and Loss balance (deficit) . .	196,406 36	11,319,040 93	*	-
Total assets as per balance sheet . .	\$181,207,246 41	\$196,573,547 18	*	-
<i>Liabilities.</i>				
Capital stock	\$119,045,229 92	\$118,390,938 88	-	\$654,291 04
Funded debt	50,738,711 85	55,722,927 62	\$4,984,215 77	-
Unfunded debt	11,423,304 64	10,200,667 71	-	1,222,636 93
Surplus	-	12,259,012 97	*	-
Total liabilities as per balance sheet, .	\$181,207,246 41	\$196,573,547 18	*	-
Total number of stockholders . . .	36,092	37,041	949	-
in Massachusetts . . .	25,970	26,655	685	-
Stock held in Massachusetts . . .	\$76,839,484 07	\$76,881,584 07	\$42,100 00	-
Persons employed	19,043	19,453	310	-

* In the year 1878 the Profit and Loss balance represents the difference between the total surplus and total deficit of all the roads; in 1879 the sum total of each is represented on both sides of balance sheet.

Summary taken from the Returns of 1878 and 1879 — Concluded.

	1878.	1879.	Increase.	Decrease.
<i>General Exhibit for the Year.</i>				
Total income	\$29,053,008 76	\$30,312,964 54	\$1,259,955 78	-
Total expense, including taxes	18,188,878 89	18,651,077 23	462,198 34	-
Net income	10,864,129 87	11,661,887 31	797,757 44	-
Rents	1,631,247 89	1,501,873 45	-	\$123,374 44
Interest accrued	3,126,925 34	3,172,990 59	46,065 25	-
Dividends earned	6,105,956 64	6,981,023 27	875,066 63	-
per cent	5.13	5.85	.72	-
Dividends declared	5,589,927 40	5,264,431 78	-	325,495 62
per cent	4.69	4.44	-	.25
Balance for the year	516,029 24	1,716,491 49	1,200,462 25	-
Surplus Sept. 30	196,406 36d	939,972 04	-	1,136,378 40
<i>Transportation Earnings.</i>				
From local passengers	\$9,163,652 26	\$9,363,232 33	\$199,580 12	-
through passengers	3,786,318 50	3,671,815 06	-	\$114,503 44
express and extra baggage	803,821 48	846,863 81	43,042 33	-
mails	435,043 90	432,460 08	-	2,583 82
other sources	31,675 61	25,120 00	-	6,555 61
Total passenger department	\$14,220,511 75	\$14,339,491 33	\$118,979 58	-
From local freight	6,775,760 79	7,456,393 37	680,632 58	-
through freight	6,939,330 51	7,213,082 13	273,751 62	-
other sources	67,633 36	143,862 19	76,228 83	-
Total freight department	\$13,782,724 66	\$14,813,337 69	\$1,030,613 03	-
Total transportation earnings	28,003,236 41	29,152,829 02	1,149,592 61	-
Transportation expenses, including taxes	\$18,956,496 99	\$19,131,792 25	\$175,295 26	-
<i>Mileage, Traffic, &c.</i>				
Train miles, passenger	10,301,893	10,792,629	490,736	-
freight	9,266,252	8,974,993	-	291,259
Total revenue train miles	19,568,145	19,767,622	199,477	-
Miles run by other trains	1,870,184	2,988,288	1,118,104	-
Total train miles	21,438,329	22,755,910	1,317,581	-
Passengers, season ticket	8,320,727	10,200,304	1,879,577	-
total number	37,318,427	39,217,634	1,899,207	-
local mileage	426,519,684	446,156,221	19,636,537	-
through mileage	166,541,097	170,714,910	4,173,813	-
total mileage	593,060,781	616,871,131	23,810,350	-
Freight, total tons carried	12,186,545	14,401,877	2,215,332	-
local mileage	231,580,361	254,535,383	22,955,022	-
through mileage	483,899,826	551,529,550	67,629,724	-
total mileage	715,480,187	806,064,933	90,584,746	-
<i>Equipment.</i>				
Locomotives	1,017	1,070	53	-
Passenger cars	1,397	1,451	54	-
Mail, baggage and express cars	395	401	6	-
Freight and other cars (basis, 8 wheels)	18,469	19,509	1,040	-

d Deficit.

Summary taken from the Returns of 1873, 1874, 1875, 1876, 1877, 1878, 1879.

	1873.	1874.	1875.	1876.	1877.	1878.	1879.
Main line in Mass.	1,734,955	1,782,519	1,816,748	1,837,378	1,854,628	1,850,290	1,861,823
Double track in Mass.	436,068	440,114	440,114	439,844	440,594	452,738	450,718
Sidings in Mass.	443,987	476,893	501,907	553,285	575,416	599,948	650,383
Total in Mass.	2,615,010	2,699,526	2,761,769	2,830,507	2,870,638	2,902,976	2,962,924
Amount of capital stock .	\$115,406,883 54	\$117,066,798 07	\$118,262,285 90	\$118,179,615 03	\$118,170,201 03	\$119,045,229 92	\$118,390,938 88
Amount stock held in Mass.	63,267,080 00	68,248,199 00	68,153,848 00	74,026,509 00	75,439,380 33	76,839,484 07	76,881,584 07
Number of stockholders .	32,901	34,640	34,889	34,297	35,167	36,092	37,041
Stockholders in Mass.	23,845	25,486	25,248	24,577	25,399	25,970	26,655
Gross debt	\$45,031,862 89	\$54,072,769 17	\$61,073,728 29	\$63,417,400 84	\$64,191,990 51	\$62,162,016 49	\$65,923,895 33
Net debt	36,606,894 70	48,557,338 65	53,355,052 92	51,620,374 27	52,914,825 15	52,646,056 24	55,755,418 06
Cost of construction	\$128,181,510 69	\$138,843,889 08	\$143,847,115 87	\$140,947,113 29	\$143,167,862 07	\$144,484,189 70	\$147,850,583 71
Cost of equipment	17,861,859 47	18,293,350 17	18,633,460 04	16,590,505 37	15,481,340 51	15,466,694 15	16,356,112 58
Cost of other property	11,566,450 17	13,832,874 15	14,152,688 20	11,541,433 68	9,925,880 76	9,602,854 48	8,913,843 28
Total permanent investment .	157,609,820 33	170,970,113 40	176,633,254 11	169,079,052 34	168,575,032 94	169,553,738 33	173,130,539 57
Proportion for Mass.	99,485,251 09	111,642,551 92	118,354,965 72	110,610,316 73	109,823,225 28	110,995,551 78	122,742,287 28
Cash and cash assets	8,424,967 89	5,515,430 52	7,718,675 37	13,628,774 37	13,231,086 92	11,457,101 72	12,123,966 68
Total property and assets . .	166,034,788 22	176,485,543 92	184,351,939 48	182,707,826 71	181,806,170 86	181,010,840 05	185,254,506 25
Total income from all sources .	\$34,930,527 42	\$34,632,483 54	\$32,589,485 68	\$31,007,448 32	\$30,008,513 74	\$29,053,008 76	\$30,312,864 54
Total expense	25,412,688 74	23,929,181 84	22,942,834 52	21,460,627 52	20,634,425 36	19,820,126 78	20,158,950 68
Net income	9,517,838 68	10,703,301 70	9,646,651 16	9,546,820 80	9,374,088 38	9,232,881 98	10,154,013 86
Interest accrued	1,846,783 16	2,791,572 28	3,152,862 45	3,704,698 38	3,437,026 53	3,126,925 34	3,172,990 59
Dividends earned	7,671,055 52	7,911,729 42	6,493,788 71	5,842,132 42	5,907,061 85	6,105,956 64	6,981,023 27
Percentage to capital stock .	6.65	6.75	5.50	4.94	5.06	5.13	5.85
Dividends declared	7,230,456 02	6,988,170 85	6,735,670 93	5,558,969 49	5,429,183 31	5,580,927 40	5,264,431 78
Per cent	6.34	6.11	5.90	4.95	4.60	4.68	4.44
Balance for the year	440,599 50	923,558 57	239,882 22d	16,387 07d	477,878 54	516,029 24	1,716,491 49
Total surplus Sept. 30 . . .	11,109,635 89	11,697,499 32	11,261,508 25	1,062,896 36	556,020 08d	196,406 36d	939,972 04

Taxes paid	\$1,266,167 99	\$1,338,626 52	\$1,357,283 57	\$1,353,685 24	\$1,210,781 03	\$1,162,384 31	\$1,171,684 63
Mileage passenger trains	9,212,257	9,887,001	10,149,520	10,439,856	10,479,546	10,301,893 2	10,792,629 2
Mileage freight trains	9,684,612	9,298,817	9,206,054	9,464,471	9,967,200	9,266,252 2	8,974,963 2
Mileage other trains	1,164,748	1,061,731	910,163	701,527	364,295	1,870,184	2,988,288
Total train mileage	20,061,617	20,247,549	20,265,737	20,605,854	20,811,041	21,438,329	22,753,910
Total passenger mileage	658,207 465	681,875,870	655,615,588	639,592,115	605,544,855	593,060,781	616,871,131
Through passenger mileage ³	194,647,972	186,710,081	190,192,739	189,326,375	176,827,359	166,541,097	170,714,910
Total freight mileage	615,709,500	597,065,805	579,868,983	628,577,176	684,810,604	715,480,187	806,064,383
Through freight mileage ³	355,433,861	329,280,805	336,233,162	383,779,447	435,845,235	483,899,826	551,529,550
Total passengers carried	42,398,001	42,480,494	42,139,671	41,133,259	38,450,823	37,318,427	39,217,634
Total tons of freight carried	12,431,188	12,014,812	11,072,312	11,327,592	11,910,663	12,186,545	14,401,877
Total season-ticket passengers	6,655,443	6,752,540	5,574,136	5,918,378	5,811,649	8,320,727 4	10,200,304
Number persons employed	20,182	20,523	18,769	18,854	19,063	19,043	19,453
Locomotives	908	969	984	994	1,013	1,017	1,070
Passenger cars	1,243	1,294	1,361	1,442	1,446	1,397	1,451
Mail and baggage cars	305	353	349	335	354	395	401
Freight cars	16,143	16,148	16,720	16,836	17,292	18,469	19,509
Steel rails	630,406	883,912	1,040,404	1,144,519	1,344,673	1,517,004	1,636,082
Iron rails	2,957,227	2,817,181	2,737,998	2,721,080	2,542,781	2,413,272	2,453,904

d Deficits.¹ Including operating expenses and rents.² Mileage of switching engines, heretofore included in these accounts, included in "Mileage other trains."³ Mileage to and from other roads.⁴ In previous years computed by a majority of the roads *one* passenger per day, for the years 1878, 1879, *two* passengers per day, for time of each ticket.

TABULATED COMPARATIVE RESULTS

OF THE

CONDITION AND OPERATION

OF SEVERAL OF THE

RAILROAD CORPORATIONS OF THE STATE.

COMPILED FROM REPORTS.

(FOR CONTENTS OF TABLES, SEE PAGES 118-119.)

TABULATED COMPARATIVE RESULTS OF RAILROAD CORPORATIONS.

RAILROADS.	STOCK, DEBT, AND COST PER MILE ROAD OWNED.					
	72. — Stock Paid in.	73. — Net Debt.	74. — Total Stock and Net Debt.	75. — Construction.	76. — Equipment.	77. — Total Invest- ments.
Boston & Albany	\$80,118 57	\$23,135 20	\$103,253 77	\$97,619 34	\$12,600 25	\$115,036 38
Boston & Lowell	43,229 55	39,348 35	82,577 90	76,900 00	5,877 00	89,916 35
Boston & Maine	54,713 60	23,647 50	78,361 10	75,198 50	9,820 00	91,238 60
Boston & Providence	62,743 15	12,791 20	85,534 35	69,101 74	3,253 23	82,348 60
Eastern	42,352 50	122,654 80	165,007 30	59,322 00	6,780 50	77,173 80
Fitchburg	48,221 17	14,925 90	63,147 07	45,125 25	12,536 75	68,435 05
New York & New England	75,794 90	18,529 80	94,324 70	91,658 00	4,200 00	95,858 60
Old Colony	22,505 25	18,208 80	40,714 05	34,379 85	3,981 20	43,350 78
Average	\$54,596 90	\$30,046 00	\$84,642 90	\$69,601 90	\$7,217 20	\$82,222 70
Cheshire	\$40,158 50	\$9,892 30	\$50,050 80	\$44,671 20	\$6,010 20	\$50,681 40
Connecticut River	37,600 70	577 00	38,177 70	42,901 30	4,331 95	49,115 55
New Haven & Northampton	24,845 95	23,693 05	48,539 00	40,756 06	8,044 80	49,642 95
New York, New Haven & Hartford	110,320 30	—	110,320 30	91,740 80	15,334 19	111,978 66
Norwich & Worcester	39,222 90	3,364 15	42,587 05	48,557 68	2,707 10	55,379 76
Providence & Worcester	38,902 95	28,783 15	67,686 10	57,039 10	13,173 90	70,213 00
Worcester & Nashua	39,172 70	9,928 15	49,100 85	46,438 95	8,537 65	54,976 60
Average	\$55,843 15	\$9,883 82	\$65,726 97	\$58,547 90	\$9,292 60	\$70,026 80
Average 15 Roads	\$54,946 00	\$24,312 15	\$79,258 15	\$66,451 85	\$7,807 33	\$78,764 43

Tabulated Comparative Results of Railroad Corporations — Continued.

RAILROADS.	EARNINGS AND EXPENSES PER MILE ROAD OPERATED.			EARNINGS AND EXPENSES PER TOTAL REVENUE TRAIN MILE.		
	78.—Total Transportation Earnings.	79.—Operating Expenses.	80.—Net Earnings.	81.—Total Transportation Earnings.	82.—Operating Expenses.	83.—Net Earnings.
Boston & Albany	\$18,767 10	\$11,505 35	\$7,261 75	\$1,365	\$0,837	\$0,528
Boston & Lowell	13,799 07	9,348 27	4,450 80	1,545	1,047	.498
Boston & Maine	10,632 30	6,700 00	3,932 30	1,578	.994	.584
Boston & Providence	17,101 75	11,552 60	5,549 15	1,516	1,024	.492
Eastern	8,652 15	5,287 90	3,364 25	1,600	.978	.622
Fitchburg	10,168 65	7,712 10	2,456 55	1,243	.943	.300
New York & New England	6,920 80	5,080 15	1,840 65	1,248	.934	.314
Old Colony	6,086 30	4,730 85	1,355 45	1,559	1,212	.347
Average	\$10,387 60	\$6,950 55	\$3,397 05	\$1,429	\$0,961	\$0,468
Cheshire	\$7,709 40	\$5,653 30	\$2,056 10	\$0,997	\$0,731	\$0,266
Connecticut River	7,682 04	5,022 65	2,659 39	1,639	1,072	.567
New Haven & Northampton	5,365 37	3,348 34	2,017 03	1,627	1,016	.611
New York, New Haven & Hartford	25,691 02	14,720 52	10,970 50	1,981	1,135	.846
Norwich & Worcester	10,039 00	5,894 15	4,144 85	1,455	.854	.601
Providence & Worcester	13,681 57	8,235 00	5,446 57	2,034	1,224	.810
Worcester & Nashua	5,006 15	3,254 90	1,751 25	1,264	.822	.442
Average	\$12,097 00	\$7,296 35	\$4,000 65	\$1,707	\$1,030	\$0,677
Average 15 Roads	\$10,817 60	\$7,067 95	\$3,749 65	\$1,497	\$0,978	\$0,519

Tabulated Comparative Results of Railroad Corporations — Continued.

RAILROADS.	EXPENSES PER TOTAL TRAIN MILE.							
	84.—Repairs of Road.	85.—Repairs of Bridges.	86.—New Rails.	87.—Repairs of Locomo- tives.	88.—Fuel.	89.—Oil and Waste.	90.—Repairs of Passenger Bag- gage and Mail Cars.	91.—Repairs of Freight Cars.
Boston & Albany	\$0.0879	\$0.0058	\$0.0126	\$0 0502	\$0.0982	\$0.0101	\$0.0502	\$0.0697
Boston & Lowell	.0830	.0236	.0301	.0390	.0790	.0099	.0574	.1325
Boston & Maine	.0988	.0081	.0170	.0537	.0992	.0106	.0500	.0837
Boston & Providence	.0998	.0304	.0316	.0558	.0920	.0077	.0433	.0982
Eastern	.0860	.0167	.0189	.0420	.0893	.0045	.0564	.1093
Fitchburg	.0927	.0137	.0237	.0498	.1105	.0113	.0450	.1042
New York & New England	.1257	.0164	.0317	.0388	.0804	.0045	.0512	.0689
Old Colony	.1469	.0291	.0558	.0362	.0804	.0098	.0750	.0818
Average	\$0.1003	\$0.0153	\$0.0248	\$0.0460	\$0.0934	\$0.0088	\$0.0549	\$0.0822
Cheshire	\$0.0625	\$0.0039	\$0.0145	\$0.0453	\$0.1504	\$0 0067	\$0.0762	\$0.0484
Connecticut River	.1527	.0192	.0411	.0545	.1347	.0084	.0435	.1099
New Haven & Northampton	.1826	.0696	.0810	.0540	.0905	.0140	.0253	.0925
New York, New Haven & Hartford	.0615	.0140	.0016	.0353	.0982	.0143	.0889	.1716
Norwich & Worcester	.1060	.0106	.0225	.0500	.0840	.0097	.0540	.1150
Providence & Worcester	.1152	.0217	.0460	.0535	.0739	.0072	.0844	.1490
Worcester & Nashua	.0846	.0052	.0232	.0440	.1264	.0099	.0546	.1525
Average	\$0.0905	\$0.0173	\$0.0211	\$0.0435	\$0.1041	\$0.0113	\$0.0726	\$0.1270
Average 15 Roads	\$0.1002	\$0.0158	\$0.0239	\$0.0454	\$0.0960	\$0.0089	\$0.0596	\$0.0926

Tabulated Comparative Results of Railroad Corporations — Continued.

RAILROADS.	REPAIRS.					PER TRAIN MILE.	
	92.—Per Locomotive.	93.—Per Passenger, Baggage and Mail Car.	94.—Per Freight Car.	95.—Per Passenger, Average Distance travelled.	96.—Per Ton of Freight, Average Distance carried.	97.—Passengers carried.	98.—Tons Freight carried.
Boston & Albany	\$1,009 60	\$286 00	\$39 60	19.47	118.85	74	105
Boston & Lowell	906 25	361 80	39 80	11.34	22.71	49	90
Boston & Maine	1,095 50	290 25	25 03	14.20	47.16	68	79
Boston & Providence	984 70	206 00	31 40	11.87	31.53	70	85
Eastern	925 20	324 70	38 95	14.42	52.93	63	90
Fitchburg	1,142 90	285 60	47 45	15.75	70.70	52	107
New York & New England	934 60	391 65	40 88	13.60	42.07	37	66
Old Colony	1,014 95	573 30	47 42	15.75	38.45	62	71
Average	\$951 75	\$309 75	\$36 82	15.00	68.20	60	95
Cheshire	\$828 07	\$302 00	\$42 62	31.70	55.70	31	63
Connecticut River	1,186 17	301 70	33 77	10 50	22.70	40	81
New Haven & Northampton	1,039 60	205 35	30 25	16.60	48.00	22	100
New York, New Haven & Hartford	860 83	452 15	79 78	28.74	52.22	77	98
Norwich & Worcester	1,160 57	620 86	54 45	22.00	37.50	42	58
Providence & Worcester	1,146 45	468 00	40 08	8.40	28.55	60	88
Worcester & Nashua	893 95	348 12	76 28	19.09	31.74	32	66
Average	\$963 05	\$415 05	\$56 30	20.50	41.50	59	80
Average 15 Roads	\$954 35	\$336 60	\$41 30	16.10	60.25	60	92

Tabulated Comparative Results of Railroad Corporations — Concluded.

RAILROADS.	PASSENGER EARNINGS AND EXPENSES.			FREIGHT EARNINGS AND EXPENSES.		
	99.—Total Earnings.	100.—Expenses. ¹	101.—Net Earnings.	102.—Total Earnings.	103.—Expenses. ¹	104.—Net Earnings.
Boston & Albany	\$2,446,512 38	\$1,143,088 10	\$1,302,423 78	\$3,627,642 15	\$2,580,735 98	\$1,046,906 17
Boston & Lowell	566,912 12	593,790 75	26,878 63 ^d	623,395 80	212,591 70	410,804 10
Boston & Maine	1,344,396 99	951,290 88	393,106 11	805,460 11	403,464 60	401,995 51
Boston & Providence	734,464 13	556,032 27	178,431 86	424,179 43	226,663 50	197,515 93
Eastern	1,451,857 46	1,006,004 39	445,853 07	983,043 68	485,182 22	502,855 46
Fitchburg	717,322 98	641,240 24	76,082 74	1,205,953 76	817,275 15	388,678 61
New York & New England	874,789 14	927,784 90	53,195 76 ^d	1,058,722 34	519,197 60	539,524 74
Old Colony	1,621,051 50	1,427,327 56	193,723 94	1,141,898 44	720,278 50	421,619 94
Average	\$1,219,663 34	\$905,819 88	\$313,843 46	\$1,234,411 96	\$745,673 65	\$488,738 31
Cheshire	\$148,691 40	\$91,939 42	\$56,751 98	\$344,711 82	\$269,874 23	\$74,837 59
Connecticut River	300,089 58	282,232 43	17,857 15	313,221 42	118,925 83	194,395 59
New Haven & Northampton	148,326 62	151,575 40	3,248 78 ^d	438,269 88	214,498 93	223,770 95
New York, New Haven & Hartford	2,420,481 37	1,512,150 28	908,331 09	1,492,261 38	729,785 05	762,476 33
Norwich & Worcester	197,576 92	166,697 40	30,879 52	469,014 59	224,674 32	244,340 27
Providence & Worcester	340,502 72	281,224 50	59,278 22	573,973 39	269,202 55	304,770 84
Worcester & Nashua	193,890 71	156,783 78	37,106 93	279,191 17	150,803 85	128,387 32
Average	\$535,651 33	\$363,229 03	\$172,422 30	\$558,806 26	\$278,266 39	\$280,539 87
Average 15 Roads	\$900,457 73	\$659,276 15	\$241,181 58	\$919,796 62	\$532,203 60	\$387,593 02

¹ Expenses proportioned to passengers and freight in accordance with the total miles run by passenger and freight trains.^d Deficit or loss.

SPECIAL REPORTS

ON

ACCIDENTS, COMPLAINTS, &c.

[Appendix continued from page 111.]

[E.]

ACCIDENT ON THE BOSTON, BARRE & GARDNER RAIL-
ROAD, NEAR NORTH WORCESTER, FEB. 8, 1879.

THIS was a collision between a wrecking and a relief train.

The train which met with the first accident was the one leaving Gardner at 12.30 P.M., due at Worcester about 2 P.M., — a mixed train, No. 5, consisting of engine, nine freight cars, one combination car (baggage, mail, and smoking car), and one passenger car.

This train was due, and arrived at North Worcester, about 1.43 P.M. Soon after leaving North Worcester, the rear freight car, the combination or baggage car, and passenger car, were derailed by the breaking of the forward axle of the forward truck of the combination car. The engine and eight freight cars remained on the track. Mr. Witter, superintendent of the road, who was on the train, immediately went with the engine and eight freight cars to the yard of the machine-shops of the company at Worcester. He then telegraphed to S. W. Manning (general passenger agent of the road) as follows : —

S. W. MANNING, U. Station, —

Come to Barber's with one passenger car; train 5 off track at North Worcester. [Sent 2.30 P.M.]

(Signed)

H. M. WITTER, *Superintendent.*

Mr. Witter then took an engine and derrick car, and returned to the scene of the accident, for the purpose of replacing the derailed freight car upon the track and bringing it to Barber's. On arrival at the wreck, he found that the passengers had walked down the track, passing around the derailed freight car, — a distance of about five hundred feet, — and, being anxious to reach Worcester as soon as possible, requested to be taken through. Mr. Witter at once started back toward Barber's with his engine and derrick car, intending to run on to the turnout there, and to order Manning and his train to the wreck, for the purpose of bringing the passengers to Worcester. Mr. Witter, E. W. Vaill, and I. E. Wakefield, with the engineer and fireman, were on the engine. When in the Clay Cut, on the sharp curve about midway between Barber's and North Worcester, he saw Manning's train approaching. A collision was inevitable. Both engines whistled for brakes, and reversed; not in time, however, to avoid the collision. The engine of the wrecking train struck the car of the relief train, crushing the platforms at both ends, injuring Mr.

N. E. Stone, the telegraph operator of the company, fatally (he had gone with Manning without orders), and also injuring Mr. Manning seriously. Mr. Vaill was slightly wounded.

The cause of this accident was Manning's not obeying the implied order to remain at Barber's till further direction. Wells, his (Manning's) engineer, who had no copy of the order, knew what the order was, and should not have moved his train from Barber's until ordered by Mr. Witter.

The Commissioners had no separate hearing, but attended and took part in the official investigation held before Judge Williams of the Central District Court, where District Attorney Staples conducted the investigation.

ACCIDENT AT A HIGHWAY GRADE CROSSING OF THE FITCHBURG RAILROAD IN LINCOLN.

The locomotive of the through express passenger train from North Adams to Boston, struck an open carriage at the point in the town of Lincoln, where the railroad crosses the highway at the same level, killing one of the persons in the carriage, and injuring the other. The scene of the accident was visited by the Commissioners in company with the officers of the road, on the 13th of May; the engine-driver and fireman of the train were questioned, and the information otherwise necessary to a correct understanding of the case obtained.

The accident occurred at about 9.20 P.M.; the night was clear and very quiet; and the train was running on time. The crossing, as such crossings go, cannot be considered as a peculiarly dangerous one. The old county road from Concord to Boston and the railroad run along in this vicinity, not far from each other, for a considerable distance, and the railroad crosses the highway at an acute angle, approaching the point of crossing from the west (the direction from which the train in this case was coming) by a curve. The track is visible from the highway for a fair distance each way, especially to a person approaching the crossing from the east. There had, however, already in previous years, been two not dissimilar fatal accidents at this place, in consequence of which a flagman had been stationed at it; since which time no accident had occurred. It was the duty of this flagman to remain at his post until the North Adams express passed; but, on the evening in question, his wife being very sick, he had left it in advance of the regular hour, in order to care for her. Mr. Snelling, a resident of Lincoln, accompanied by his wife, was return-

ing home from Boston. Both of them were familiar with the crossing and with the signals of passing trains. As they approached the crossing, necessarily from the east, they, for a considerable distance, almost faced any train as it rounded the curve from the same direction; and, if they were far enough back, the reflection of the head-light would be thrown directly across the road in front of them. The train was in this case on time, and moving at the rate of from thirty to forty miles an hour; there can be no doubt that the head-light of its locomotive was burning, and that, as it approached the crossing, its bell was rung for more than the distance required by law. There is equally no room for doubt that neither Mr. Snelling nor his wife was at all conscious of the approach of the train until they found themselves almost on the track in front of it. From the statements of the survivor it is clear that, until too late, they neither saw the head-light nor heard the bell. This was probably due to the fact that, although in approaching the crossing from the east, the view of the railroad from the highway is for part of the distance very good, yet, immediately before reaching the crossing, it is obscured by rising ground, covered with a fringe of pine-trees. The carriage was probably approaching those trees as the train came round the curve. The reflection of the head-light was accordingly thrown across the road behind them, while the sound of the bell was deadened by the rising ground and its cover of trees, and did not reach them. The flagman was not at his post, and the accident naturally followed.

This accident was due, however, not merely to the absence of the flagman from his post, but in quite as large a degree to the crudeness and inadequacy of the signals in use at this, in common with most other highway grade-crossings in the State. It accordingly brings the subject up most opportunely for report and public consideration. As respects the crossings of railroads and highways at the same level, neither popular sentiment nor the law in Massachusetts is in a satisfactory condition. So far as popular sentiment is concerned, while these crossings are objected to in the abstract to any desired extent, — while the dangers incident to them in theory are freely admitted and expatiated upon, — yet when any particular grade-crossing is proposed, it almost invariably finds such a strong local support that it is extremely difficult to prevent its adoption.

Under these circumstances the appliances of safety to be used at them becomes a question of no small importance. They should unquestionably be of the most improved description, giving to those who may have occasion to use the crossings every warning, of which circumstances permit. The signals and appliances now prescribed by law in Massachusetts, and almost universally resorted to by the corporations, are, however, in point of fact of the crudest and sim-

plest description, — such as have been in use almost since the origin of our railroad system, with scarcely an effort at their improvement. They consist of signs, which are of scarcely any value at all, gates, or flagmen, as the local authorities may direct, and the ringing of the bell, or sounding of the whistle on the locomotive, as it approaches the crossing, and within a given distance of it. Measured either by the standards for protecting travellers at such places in use in Europe, or by recent improvements with which our railroad officials are familiar, but which they have been slow to adopt, these safeguards cannot be considered satisfactory. That so few accidents occur at crossings is, in view of their number, and the character of the protection which has been referred to, most remarkable. Nevertheless, hardly a year passes that more fatal accidents do not occur at these places than occur from the faults or omissions of the corporations in conducting their entire passenger movement. The reason is obvious. For any accident to their passengers the corporations are held to a strict and heavy accountability, while under the severe rule of contributory negligence, as established by the Supreme Court of this State, it is very rarely that they are made liable for accidents at grade-crossings. Indeed, it may well be questioned whether they should be held to a strict liability so long as local communities insist on such crossings in spite of their most strenuous opposition. Accordingly we have every year such accidents as that of May 8, at Lincoln; or that of July 11, 1877, at Wendell, also on the Fitchburg road, where five persons were killed; or that of June 27, 1875, at Fall River, on the Old Colony, where five persons were killed; or that of Oct. 20, 1875, when Mr. Frederick Hudson lost his life.

The case is simply this. The railroad companies are corporations which carry on upon their own premises a most necessary, but extremely dangerous business. In conducting this business, they are obliged to leave their own premises, and temporarily occupy highways, in a manner which imposes the utmost risk on those using them. Under these circumstances they are bound, while conducting their business, to exercise not only reasonable or great, but the utmost possible care. They should be permitted to neglect no precaution, nor to omit the use of any appliance of safety. The great difficulty and source of danger at all grade-crossings at present is the almost universal absence of any means of communication between those crossings and the approaching trains. The signal, be it bell or whistle, is sounded on the locomotive, instead of at the crossing. That signal, therefore, is approaching the traveller on the highway, instead of the traveller approaching the signal as he approaches the point of danger, until at last he is in almost direct contact with it, and cannot help being aware of it. For this great defect in the

signal system, there is no longer the slightest excuse. As has been stated, the railroad corporations are bound to give every possible notice of the approach of their trains to highway crossings, and they should give that notice at the crossings, where it is needed, and not upon their trains, where it is not needed. To do this, they have simply to use the electric crossing-bell, an appliance with which all railroad officials are more or less familiar, and the constant use of which in other shapes on several roads of this State has caused it to cease to be any longer a doubtful experiment. Its use in other connections is, in fact, already an established feature in the operation of our railroads, and even in this connection can be found on the Boston & Albany road, and, possibly, elsewhere. It is fair subject for surprise, indeed, that such an obvious application of electricity has not before this become general, for, in case of accident, it removes all question of due care from the corporations, and imposes it on those using the highways. The bell is set ringing by the action of any approaching car at a distance of half a mile, giving notice to the flagman or gate-keeper; and, if he does not stop it, it rings continuously until the car or train passes. While the crossing-bell rings, there is danger, and travellers on the highway must guide themselves accordingly; when it is silent, there is nothing within a half-mile of the crossing, and its passage is safe.

Had this appliance been in use on the Fitchburg road on the 1st of May, there can hardly be a doubt that no accident would have occurred. So also as respects the Wendell accident of July 11, 1877, and the Fall River accident of June 27, 1875.

The signal referred to is not a substitute for any of the appliances now in use, but a safeguard additional to them. While it notifies gate-keepers and flagmen of the approach of trains, it also, in their unauthorized absence from their posts, may be made to supply their places, and save the corporation from the liability it incurs through their neglect of duty. Neither can it be argued that it is liable to get out of order in time of storm, when it is most needed, and so to invite disaster; for the statistics show that accidents of this description usually happen during quiet weather, when no danger is expected, while during storms travellers naturally exercise extreme caution. The question as regards the degree of reliance to be placed on these as other signals is, moreover, a practical and not a theoretical one; and in practical service they have been found to be useful.

In view of these facts in connection with this now well-known appliance, and the accidents at grade-crossings which have been referred to, the Commissioners take this occasion to strongly recommend the increased adoption of the electric grade-crossing signals to the various railroad corporations of the State. It will be a matter

for the next Legislature to decide whether the existing laws shall not also be so amended as to authorize the proper local authorities to prescribe the use of this signal at such crossings as may seem necessary to the better security of the public, in addition to, or in place of, those other appliances now specified in the General Railroad Act of 1874 (§ 126).

ACCIDENT ON THE OLD COLONY RAILROAD AT BROCKTON, AUG. 29, 1879.

This was a derailment of a passenger train, caused by the misplacement of a switch. The switch connected with a side track running to Mr. Soule's lumber-yard, west of the main track, and is about eleven hundred feet north of the passenger station. The foreman of this section of the road was engaged, with three men, in replacing the switch timbers, and his hand-car was standing on the side track, about one hundred feet from the switch. The rails had been spiked on the main track, and the switch had been turned, in order to match the rails on the side track. The Cape Cod train from Boston, consisting of engine and tender, baggage car, smoking car, and seven passenger cars, was due at 9.03, and was two minutes late. The foreman was about to send one of the workmen to another station by that train, and looked at his watch to see whether it was time for it to arrive. Finding that his watch had stopped, he learned the time from a clock on a church-spire near by, sent his man to the station, and looked once more at his watch, which he had carefully put in order. The Cape Cod train approached at the rate of about twenty miles an hour, having been checked at the distance of a mile, for the purpose of oiling the valves. The engineman failed to notice the switch-target, which was turned with its black disk toward him, thus giving warning; but when within three hundred feet he observed the misplacement of the rails, and applied his brakes with full force, reversed the engine, and reduced his speed to ten or twelve miles an hour. The engine entered on the side track; but as the switch was unlocked it threw the switch-rail to the left a little, but sufficient for the flanges of the wheel to strike the end of the rail of the side track. This, however, did not derail the engine; nor was it derailed till it came in contact with the hand-car. The collision broke off the pilot, and this being driven under a sleeper was the probable cause of the derailment of the train, which took place near the point of contact with this hand-car. The engine ran off an embankment fifteen feet high, and lay on its side at the foot of

it. The tender passed by it; the baggage car passed over the engine, and the smoking car lay on the engine. Two passenger cars left the track, but did not fall to the bottom of the embankment, lying on it at an angle, being held by the Miller platforms and couplers. The other passenger cars did not leave the track. No one was seriously injured. One passenger complained of bruises, and an expressman in the baggage car was hurt by a falling trunk, but was able to resume his work in the afternoon. The engineman and fireman remained at their post. They were unhurt, and they at once let off the steam and put out the fire. The money damage to the corporation will not exceed twenty-five hundred dollars.

The day was clear; the switch-target was plainly visible at a distance of more than six hundred feet. The switch was a Tyler safety-switch.

The negligence of the section foreman was the primary cause of the accident. He was evidently absorbed in caring for his disordered watch, and so forgot to have the switch replaced and locked. He had been employed on the road for twenty-two years, and had been foreman of this section for more than eleven years, sustaining a high character for vigilance and fidelity.

The second cause of the mishap was the engineman's negligence in not observing the switch-target, which gave plain warning of danger. Even if it had been partially turned it would have been sufficiently distinct. But the evidence shows that the black disk was wholly turned towards the approaching train. If it had not been so, the derailment would have taken place at the intersection of the tracks. In fact, the engine entered on the side track safely, and no accident would have occurred if the hand-car had not been there. It is probable that the engineman was made careless about the target from seeing men at work upon the road-bed. He took it for granted that all was right, because they were there, and no flag had been displayed to warn him of danger; but this does not excuse his neglect to observe the authorized and certain signal of danger or safety, the target of the switch. He had been employed as engineman for two years, and as fireman for some years before. He had an excellent reputation, and is of more than ordinary intelligence. He acted promptly and wisely as soon as he discovered the danger; and he, with the fireman, was prompt in putting out the fires and in letting off steam after the accident had occurred. But nothing can excuse his negligence or that of the foreman; and the officers of the Old Colony road only did their duty in discharging them both.

The accident shows that no amount of care in the selection of men or in the use of proper appliances will always insure safety. Such an occurrence, in presence of the foreman and of his men standing by

the misplaced switch, and with the target telling its story as plainly as black and white could tell it, would seem to be impossible if it had not actually happened. An electric or other automatic switch-signal would indeed have given warning at a greater distance; but in this case plain warning was given at a distance more than sufficient to have prevented the accident.

It was a wonderful piece of good fortune that prevented any loss of life or limb; and but for the Miller platform and coupler serious loss would undoubtedly have been incurred. The Commissioners have felt bound to examine the matter as carefully as if it had proved fatal, visiting the scene on the next day, and renewing their examination at a subsequent time when they visited Brockton on another errand. They have also examined all who had any connection with the mishap, and have felt no doubt as to the facts and no hesitation in condemning the negligence of the two guilty parties, or in exonerating the managers of the road from any shadow of blame.

[F.]

COMPLAINT

OF GEORGE P. BRIGGS OF PITTSFIELD AGAINST THE BOSTON & ALBANY
RAILROAD COMPANY FOR NEGLECT TO FENCE THEIR TRACK.

COMPLAINT was made by a letter, dated September 25, 1879, stating that the corporation had not complied with the law. When a specification was asked by the Commissioners, it was stated by the complainant that the corporation, as he was informed, intended to build fences whenever the land-owner requested; thus seeming to imply that fences were not to be erected where no request was made, or where the company own the adjoining land. If this view had been taken by the corporation, it would have shown an entire misapprehension of the law and of its object. The chief purpose of the Act was, not to protect land-owners, but to protect the limbs and lives of passengers from the dangers caused by the straying of animals upon the track. This danger, it need not be said, would not be affected by the ownership of the adjoining land, or by the wishes of the owner.

Upon inquiry, it appeared that the Boston & Albany Railroad Company had expended more than \$17,000 since the passage of the law, in erecting and repairing fences; that during this year more than \$18,000 had been so expended, being an increase of \$1,000 over the expenditure of last year for the same object; and that the corporation was going on with the construction of other fences, intending fully to comply with the law throughout the whole extent of their road as soon as material could be procured. Some difficulty had been found in obtaining material at this time. It also appeared that petitions had been prepared to be laid before the Commissioners of the several counties, asking exemption from the obligation to erect fences in various places, where exemption under the statute seemed to be proper. No claim was made that the necessity for action depends upon the request of adjoining land-owners.

The above was made known to the complainant, who rejoined, stating that the fences erected and repaired by the Boston & Albany were those which they were required to maintain before the passage of the Act. He also stated that, where the attention of the managers of the road had been called to special cases, fences had been erected, but that others in the vicinity had been neglected; and it was his belief that none had been built under this law except on the request of persons immediately interested. This belief appears on

investigation to be erroneous. The Commissioners were also requested to personally inspect the road to see whether the corporation was complying with the new law. This had already been done, so far as the annual examination of the roads had been made, special attention having been given to this question on all the trips of inspection. And since the ordinary examination of a portion of the Boston & Albany Railroad, one member of the Board has gone over the main track, with the sole object of investigating this point; and a detailed report has been made to the president of the Boston & Albany Railroad Company. There are large portions of track not yet fenced; some, from their position, do not need to be; others ought to be fenced as soon as possible.

No other definite request for action was made by the complainant, who stated that he wished to submit the matter of the necessity of official action by the Commissioners to their own discretion. Further communication with the president of the railroad company showed that they were proceeding with a fair amount of diligence to erect new and repair old fences; and they have paid especial attention to certain localities pointed out to them by the Commissioners as needing immediate action. No other complaint than that of Mr. Briggs has been made.

Under these circumstances, the question is, whether the Board ought to send the matter to the Attorney-General; but it seems clear to the Board that no such duty exists. The law has a peculiar provision, borrowed from previous Acts on the subject, viz.: that a corporation "unreasonably neglecting to comply with" its provisions shall be liable to a penalty generally. Any person or corporation neglecting to comply with the provisions of a penal law is liable, without further proof. But before deciding that a company is punishable under this Act, it is necessary to prove first that it has violated the law; and secondly, that it has done so unreasonably. And in deciding this question, it is necessary to consider the extent of the work required to be done. It will hardly be claimed, that on the 9th of May, the day when this statute took effect, the corporation was liable because suitable fences were not then erected "upon both sides of the entire length of its railroad." Even without the clause above quoted, it is doubtful whether this would be the law.

A reasonable time is to be allowed for the work proportionate to its extent. And in considering what is a reasonable time, some regard would probably be paid to the first clause of the statute allowing exemption from the duties imposed by the Act, to be obtained by application to the Commissioners of the several counties. Some time should be allowed for making application for this exemption, as otherwise this provision would be of no avail. What the practical effect

of allowing this exemption will be, and whether it will not result in exempting railroads in many dangerous places, is a question which the Board is not called on at this time to discuss. It is part of the law, and the whole law must have full effect. Finally, considering the length of the track of the Boston & Albany Railroad, the difficulty of obtaining materials, and the amount of work already done, the Board cannot decide that the corporation has "unreasonably" neglected to comply with the provisions of law. And the Commissioners decline to send this case to the Attorney-General either for prosecution to recover a penalty or for an application for injunction. And they are more confident in so deciding, because the question can be tried without their intervention, at the suggestion of any party who believes that the corporation is liable to the penalty provided by law.

[G.]

RAILROAD SIGNALS.

IN addition to the signals mentioned in the Report, the following were exhibited in model : —

TISDALE'S IMPROVEMENT IN MECHANICAL AND ELECTRIC RAILROAD SIGNALS

is an elaborate and ingenious device, by which each passing train sets a signal of danger as it enters a section of the road, and resets it at safety as it leaves the section. The device has been placed on a short section of the Boston & Maine Railroad, but has never been tested by the railroad company, probably because it is not quite ready for trial. The Board has not felt that it should report on any device which has not been in practical use for business purposes. And it needs a long use, for practical ends, before a recommendation could be made. A like remark will apply to

MCLEOD'S AUTOMATIC AIR-SIGNAL,

an ingenious and inexpensive device, by which the coming of a train is announced far in advance, both by visible and audible signals. A full-size model worked admirably ; but the invention still lacks the test of successful operation on a railroad track.

THE LOCOMOTIVE CAB ELECTRIC RAILWAY SIGNAL

is an automatic device by which an audible signal is given to the engineer in the cab, forcing his attention to the danger announced, whether from an open switch or draw-bridge, and possibly from a broken rail. And it is claimed that signals may be given at stations and at crossings ; and, also, that the engineer on the locomotive may be warned from the stations of existing danger. These and other signals are given by means of a battery carried in the cab, and operating through conductors placed on a base under the tender, and working upon levers on the road-bed.

The ingenuity of these elaborate devices, and the excellence of the model, which was fully explained by Gen. Miles orally, in writing, and by drawings, were very interesting. Its chief claim is, that to visible signals, which may fail to be observed, it adds an audible warning, which, from its position, can never fail to be heard. But, until this novel invention has been tested on the track, it is not a subject for report by the Board.

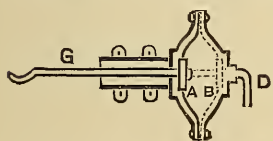
OTTERSON'S SIGNAL

is a simple device for blocking a section of track for a certain time after it has been entered by a train. A can of alcohol, enclosed in a box, is overturned by the pressure of the locomotive wheels on a lever, and the liquid is caught in a chamber of the box. The box thus turned holds a flag-staff, or other signal, in a horizontal position, until the liquid, slowly running back into the can, causes the box to resume its original position, and the signal is withdrawn from sight. This invention was employed at one station on a road in this State for five months, but is not now in use. It is not patented, and its cost is trifling. It merely aims to accomplish one object of a railroad signal; and it secures only an interval of time between trains, and not a positive interval of space.

BEAN'S ATMOSPHERIC SIGNAL.

The following is a description of this signal, which is referred to in the Report:—

A diaphragm of leather is fastened between the two parts of an iron case thus: a rod (G) attached to the centre of the diaphragm passes through one side of the case, and is connected with the lever of a switch, lock-bolt of a draw-bridge, or other movable part of a railroad. When the main track is unbroken, or "all right," the diaphragm is at one side



of the case (A); but, when the switch is turned upon the side track, the movement of the lever causes the rod to push the diaphragm to the opposite side (B), pressing the air through a one-fourth inch gas-pipe (D) connecting with a signal at any desired distance. The movement of a small diaphragm at the end of the pipe sets a semaphore at "danger." When the switch is set back to the main track, the rod, moving with the switch-lever, causes the diaphragm to resume its position (A), and the signal is set at safety.

The working is strictly automatic, every movement of the lever causing a movement of the signal. As a check, and to enable the switch or signal man to know positively that the signal has properly turned, even when out of sight, as at curves, or in fogs and storms, an electric connection is made between the two points, and every change of signal is announced at the station, or switch, by the ringing of a bell. The electric wire runs through the pipe, which may be embedded in the earth for protection.

The cost is moderate, and there is no continued expense in maintaining these signals.

REPORTS ON THE OPERATIONS OF ELECTRIC SIGNALS.

BOSTON & ALBANY RAILROAD COMPANY,
BOSTON, Dec. 13, 1879.

DEAR SIR, — In reply to your questions concerning the Hall Signals, I send you a comparative statement for the years ending Nov. 30, 1878 and 1879. The whole number of stops made by trains in 1879, caused by other trains in the section, was 1,689. Stops made for cause unknown, 1,573. So far as we can tell, these stops were unnecessary. The number of signals not working is 4,344. In these cases caution would be indicated, and the danger signal would not be shown to a following train, during the time the preceding train was in that section. We continue our rules for guarding the rear of trains, and do not rely upon the signals at any time. Connected with switches and bells at highway crossings, the system works very well. There are 39 signals east of South Framingham which are operated 2,748 times daily (Sundays excepted), and 350 times on Sunday.¹

Yours respectfully,

W. H. BARNES.

D. W. LINCOLN, Esq., *President Boston & Albany Railroad.**Comparative Statement of the Working of Hall's Signals for the Year ending Nov. 30, 1878 and 1879.*

	1878.	1879.
Trains stopped by another train in section	1,612	1,689
Trains stopped, cause unknown	624	1,573
Failed to work	2,800	4,344

EASTERN RAILROAD COMPANY,
BOSTON, Dec. 22, 1879.W. A. CRAFTS, Esq., *Clerk Board Railroad Commissioners.*

Dear Sir, — In reply to your inquiry for information in regard to the working of our automatic signals during the past year, I will give the following information: —

As you will recollect, I made a report on 12th of August, in which was briefly described the working of our modified Hall system, with a list of its failures during a period of some months.

Since that date the operation has been still more satisfactory; as, for instance, in November, when, from approach of winter, an increased number of failures might naturally be expected. The following are the facts: —

Whole number of stops during month, 27.

Causes.

Spindles stuck	8
Wires crossed	3
Section men moving material	1
Trains in section	15
	27

¹ The product of the number of signals, multiplied by the number of trains passing and acting on them during the year, is 878,324, and is the number of times requiring the movement of a signal; so that the number of reported failures to act — 4,344 — is one in 202 times. — *Commissioners.*

On the whole, while the system is not perfect, it has given very fair satisfaction, and is a great help to the safe and economical working of the road.

Up to the present time I know of nothing better.

Yours truly,

E. B. PHILLIPS, *President.*

FITCHBURG RAILROAD,
BOSTON, MASS., Dec. 12, 1879.

HON. THOMAS RUSSELL, *Railroad Commissioner,*
No. 7, Pemberton Square, Boston.

Dear Sir,—Your favor of the 8th inst., addressed to the president, in relation to the Union Electric Signal Company's signals in use on this road, has been referred to me.

Please find enclosed herewith a tabulated statement which I have had prepared for you from the reports rendered by the enginemen, showing the number of times the signals have been found at danger, and the causes, from May 1 to Nov. 15, 1879, inclusive.

The total number of regular week-day trains which have passed over the larger portion of the signals, during the period covered by this statement, is 12,312; and the number of extra trains, shifting engines, &c., is undoubtedly half as many more, making the total number of week-day trains 18,468, which is an average of 108 trains per week day.

We think they are a success, and that they add materially to the safety of the trains. An important feature in this system is, that, if it fails to operate, it cannot endanger the trains.

For further information in regard to them, I would refer you to my communication of Aug. 15 last, addressed to your Board in response to inquiries upon the subject, as the facts remain substantially unchanged.¹

Respectfully,

JOHN ADAMS, *General Superintendent.*

Tabulated Statement of Reports in regard to Electric Signals found at Danger on the Fitchburg Railroad from May 1, to Nov. 15, 1879, inclusive.

MONTHS.	Train in Section.	Broken Rail.	Hand-car in Section.	Misplaced Switch.	Trackmen Working in Section.	Cause not known.	Signal Wires, &c., being out of Order.	Interruptions caused otherwise than by Trackmen.
1879.								
May	24	—	1	1	1	1	7	—
June	19	—	1	3	—	2	16	—
July	12	—	1	2	9	11	27	—
August	1	—	—	—	—	6	26	1
September	7	—	6	1	1	5	35	—
October	2	—	—	1	1	4	26	2
November to the 15th inst. .	—	—	—	—	2	—	14	—
	65	—	9	8	14	29	151	3

¹ The number of signals is thirteen.

BOSTON & LOWELL RAILROAD, SUPERINTENDENT'S OFFICE,
BOSTON, Jan. 2, 1880.

WILLIAM A. CRAFTS, Esq., *Clerk Railroad Commissioners, Boston.*

Dear Sir, — In answer to your letter of Dec. 12, regarding the electric signals on this road, I would say that we keep no record of the signals, and when set, in order to prevent accident in case there might be danger, the trains are slowed. Should we stop for every signal set it would cause very frequent delays.

Yours truly,

A. A. HOBART.

OLD COLONY RAILROAD, SUPERINTENDENT'S OFFICE,
BOSTON, MASS., Jan. 3, 1880.

To the Board of Railroad Commissioners.

In reply to your inquiries in relation to signals, I will say that our experience has been entirely with the "Hall" and "Bean" signals.

The Bean signal is atmospheric, and intended for switches, draw-bridges, stations or yards, and has proved very reliable. In connection with the tell-tale bell, to announce the changing of the signal to the person operating it we should not hesitate to depend alone upon it for the purposes described. It is not a block-signal, for spacing trains automatically, and does not cover what is claimed for the "Hall" or "Union" systems.

Of the Union system we have as yet no actual experience, but are equipping three and one-half miles of single track with its signals, with the view of testing its merits.

The Hall signals have been in use on our double track for some five years, and have worked generally satisfactory.

There have been instances where they have not shown the actual condition or occupation of the section of track they were designed to cover; and we use the system as an additional safeguard, but not as an entire substitute for the former precautions.

Yours truly,

J. R. KENDRICK, *Superintendent.*

[H.]

PROPOSED EXTENSION

OF D STREET IN SOUTH BOSTON ACROSS THE OLD COLONY RAIL-
ROAD AT GRADE.IN BOARD OF RAILROAD COMMISSIONERS,
April 9, 1879.

IN the matter of the application of the Street Commissioners of Boston, for the consent of the Board to the extension of D Street in South Boston across the tracks of the Old Colony Railroad at the same level therewith.

A partial hearing in this matter was given at the office of the Commissioners in Boston, on Wednesday, 26th of March, and a view was had of the premises on the afternoon of the same day. As a result of this hearing and view, the Commissioners do not consider it necessary to go further into the question of the public necessity and convenience involved in laying out the proposed street. Upon that question the proper local authorities — the Street Commissioners of Boston — have passed; and the members of this Board, from their view of the premises, are satisfied that no sufficient grounds exist for revising that decision.

Assuming, therefore, that there is a public necessity for a crossing at D Street, the only question is, whether a crossing at grade can be avoided without imposing an excessive expense upon the city, or an unreasonable degree of inconvenience on those using the street. The matter is one of very considerable importance, as it would seem to go far towards establishing a policy as respects the crossing of railroads by streets in this part of the city; a policy, also, which, if a grade-crossing is authorized, cannot but be regarded as a reversal of the system which has been pursued at great expense for many years past. To avoid the grade-crossing of highways by a railroad in South Boston, the New York & New England road was, many years ago, carried under the Old Colony, and, by a sunken track, through to its Fort Point Channel bridge. To get rid of existing street grade-crossings, the Old Colony, in 1863, entirely relocated its road north of Dorchester Avenue; and again more recently, for the same reason, the Broadway Extension Bridge was carried at an elevation across the Fort Point Channel. But, in the present proceedings, a grade-crossing, of a most objectionable character, is asked for in this same part of the city.

The engineering difficulties in the way of any thing but a grade-

crossing at D Street are certainly very considerable. The railroad is built across a low marsh, which is not infrequently flooded at high water. It is impracticable, therefore, except at a heavy cost, to lower it. Even if this were not the case, the grade at the Dorchester-avenue crossing is a fixed point limiting the amount which the track can be dropped before reaching D Street, which is only a fifth of a mile distant. It could not well be dropped more than ten feet in that distance, leaving an elevation of ten feet still to be overcome. But, while the dropping of the railroad to pass under D Street would be difficult, elevating D Street so as to pass over the railroad by a bridge, would be at least equally so. Much was said at the hearing about the probable use made of D Street, if laid out at grade, for heavy teaming. To this evidence, however, after viewing the premises carefully, the Commissioners gave no weight. So far as grade is concerned, nothing can be better than Dorchester Avenue, and B Street is but little inferior to that. These thoroughfares only need to be properly paved to afford every facility for heavy teaming which can be desired. Under these circumstances, if it was a mere question of teaming, the Commissioners would feel no hesitation in deciding that no exigency existed which would at all justify any act reversing the established policy as regards city grade-crossings. Such, however, is not the case. The distance from the Dorchester-avenue crossing of the Old Colony to the bridge at Washington Village is twenty-five hundred feet. Throughout this distance there is a densely populated neighborhood on the east side of the railroad-tracks, while on the west side of them are the original marshes, still practically unoccupied. The railroad acts as an absolute barrier half a mile in length between the two neighborhoods. This, of course, cannot continue as a permanent thing. A block of half a mile between the intersecting streets of a city is an anomaly which must be overcome. Unfortunately, however, while the marshes to the west of the tracks are considerably below them, the graded territory east of them is nearly on the same level with them. A bridge, therefore, across the railroad, would necessitate a great deal of very expensive work, which would involve the raising of all the streets and buildings of a thickly settled neighborhood. As compared with the evil involved in an additional grade-crossing, the cost of this, it seems to the Commissioners, would be unreasonably heavy. Neither is the railroad corporation in any position to maintain that it is not. Indeed, it has fairly deprived itself of any right to do so by its own action in recently building the Shawmut branch of its road at grade over a succession of city streets, the travel upon which is probably far heavier than any travel which may be looked for over D Street.

The Commissioners, therefore, in the present case, will not feel at

liberty to refuse their assent to a grade-crossing at D Street, if an overhead crossing, involving a regrading of the adjacent neighborhood, is the only other alternative. They are, however, not as yet satisfied that this is the case. Not only could D Street be carried under the railroad, but, in other cities, a way of separating grades has been resorted to, with, so far as the Commissioners are advised, very satisfactory results, which has not yet been fully investigated with a view to its possible adoption in Boston. It consists in widening the street, and, while leaving it and the houses abutting upon it at their former grades, constructing an iron bridge supported by columns over the railroad. This bridge occupies simply the centre of the street, leaving ample space on each side for vehicles, which also pass under it at points where cross streets intersect. It is, in fact, a section of an elevated road, springing out of the street on one side of the railroad, and, by easy ascent and descent, returning to it on the other side.

The Commissioners do not know whether this expedient is practicable as a solution of the South Boston difficulty. It, however, as well as the plan of tunnelling, seems worthy of careful examination. If recourse was had to tunnelling, it is to be remembered that D Street need in no case be lowered more than five feet, as the necessary elevation could be secured by raising the Old Colony ten feet. The five feet reduction of the street grade could be made at a comparatively small cost, while to raise the railroad ten feet would be an inconsiderable matter, — much less considerable than the elevation imposed on the New York & New England Road to enable it to get across Swett Street, and yet pass under the Old Colony. In any event, the Commissioners are at least unwilling to assent to what amounts to a partial reversal of a policy which has so long and consistently been pursued in South Boston, until they are satisfied that there is nothing else to be done. In order, therefore, to give the Old Colony Railroad Company, the remonstrant in the present case, ample time to investigate the method of bridging, which has been referred to in the cities where it is in use, as well as the practicability of tunnelling, and to prepare and submit any other engineering devices by which the necessity of the grade-crossing under consideration may be obviated, the further hearing in the case is deferred until the 14th of May, at ten o'clock A.M., at this office.

By the Board of Railroad Commissioners.

WM. A. CRAFTS, *Clerk.*

IN BOARD OF RAILROAD COMMISSIONERS,
May 15, 1879.

In the matter of the laying out of D Street in South Boston, across the tracks of the Old Colony Railroad Company at grade.

At the adjourned hearing in this case, the parties appeared, and the Old Colony Railroad Company, through its president and engineer, submitted plans for a method of laying out D Street across the tracks of that company, without crossing them at a level therewith, together with the estimated cost of so doing. Of the two methods of crossing, otherwise than at a level, suggested by the Commissioners in their report on this application after the previous hearing—that by a bridge carrying the street over the railroad, and that by so elevating the railroad and depressing the street as to carry the street under the railroad—the first was pronounced, if not impracticable, yet open to so many and such serious objections, both on the score of convenience and expense, that it could not be recommended. The second method suggested—that of carrying the street under the railroad—was pronounced entirely practicable, and in no way unreasonably expensive.

From the plans submitted it appeared that it was, from an engineering point of view, possible to obtain the necessary difference of grades to carry the street under the railroad with twelve feet of head-room in the clear, by either imposing the whole necessary elevation on the railroad or the whole depression on the street. If the whole elevation was imposed on the railroad, and the street was carried through under its tracks at its present grade without lowering it at all, it would necessitate a grade for the Old Colony road on the south side of the crossing, between it and Dorchester Street, of about fifty-five feet to the mile; and on the north side of the crossing, between it and Dorchester Avenue, a grade of about forty feet to the mile. These grades, while very objectionable, would be in no way impracticable. On the other hand, if the street were lowered, so as to pass under the railroad at its present grade, it would still be above the level of the New York & New England Railroad where it passes through South Boston in this immediate vicinity. The plan submitted was, however, in the nature of a compromise, under which a portion of the necessary head-room was obtained by elevating the railroad tracks, and the remainder by lowering the street. No grade imposed on the railroad by this plan was over twenty-seven feet to the mile, while that of the street was but two feet in the hundred. The question of sewerage, it was stated on the authority of the city superintendent of sewers, who was not present at the hearing, but had been consulted in reference to the plan by the engineer of the company, presented no difficulties, and the railroad company offered

to agree to do the entire work involved in carrying out the plan submitted, both as respects the railroad and the street, for the amount (\$20,000) estimated by the engineer for its cost. This is even less than the cost involved in laying out a grade-crossing at the point in question, and providing for the permanent maintenance of gates or flagmen to guard it, which would hardly be less than \$30,000. Should the city government vary the plan submitted so as to obtain ten feet of the desired head-room, by elevating the railroad while lowering the street only two or three feet, and thus carrying it under the railroad on a grade of but one foot in the hundred, the cost of this method of crossing would still be less, apparently, than the cost of crossing at a level.

Under these circumstances, while not questioning the fact that the public necessity requires the laying out of D Street across the Old Colony Railroad, the Commissioners are not satisfied that any such necessity exists for permitting it to cross at a level therewith. The consent of the Board cannot, therefore, be given to the present application, and the Street Commissioners of Boston will be notified accordingly.

By the Board.

WM. A. CRAFTS, *Clerk.*

DEPOT ACCOMMODATIONS, ETC., ON EASTERN RAILROAD AT REVERE.

IN BOARD OF RAILROAD COMMISSIONERS,
April 9, 1879.

In the matter of the petition of B. F. Perry and others *vs.* the Eastern Railroad Company.

This was a petition from certain residents of Revere, asking the intervention of the Board with the management of the Eastern Railroad to secure for them better depot accommodations at that point, and also a reduction in their rates of fare. A hearing was had at Revere on the 6th of March, at which a number of the petitioners appeared and made statements, while the corporation was represented by its president.

So far as the matter of depot accommodations is concerned, the case presented no difficulties. It is not denied that the present station building at Revere Junction is old, out of repair, and inadequate. The corporation, however, owns another and more commodious station building a short distance off on its own road, at a point where no trains now stop. President Rockwell, at the hearing, agreed to have

this station building moved at an early day to Revere ; and the petitioners intimated that this would be perfectly satisfactory to them. So far as the question of station accommodations, therefore, is concerned, no action on the part of this Board is necessary.

As respects the question of fares, the position of Revere is somewhat peculiar, owing to the fact that the original terminus of the Eastern Railroad was not in Boston proper, but in East Boston ; and when, in 1854, it was changed, the extension to Causeway Street started from what is now Revere Junction. The petitioners, therefore, find themselves a railroad distance of six and three-tenths miles from Boston, measured from Causeway-street station, but only four miles if measured from the East Boston ferry. The present schedule of fares is the same by either route, being fifteen cents for single tickets ; eight tickets for a dollar, or twelve and one-half cents each, for commutation tickets ; while the price of quarterly (season) tickets is thirteen dollars, or eight and one-half cents per trip. These rates are the same that they have been for many years, except as respects commutation tickets, which were formerly sold at the rate of ten tickets for a dollar. In 1877 this number was reduced to eight. The total number of Revere passengers carried to and from Boston in 1878 was 18,083 ; and the receipts from them amounted to \$2,127.95, showing an average fare of 11.6 cents per passenger ; or a trifle less than two cents per mile, if computed on a basis of six and one-half miles, and a trifle less than three cents per mile, on a basis of four miles. No similar case exists on any other railroad terminating in Boston. Calculated from the Causeway-street station, and judged simply by the standard of distance, the rates of fare named cannot be considered excessive. They are not heavier than those charged for a similar distance on other roads. Whether they are judicious under the peculiar circumstances of the case, would seem to be another matter, and one about which considerable question might be made. The returns certainly indicate that they are not, inasmuch as, during the last three years, — that is, since 1875, — the number of passengers between Revere and Boston, over the Eastern road, has fallen off from over 32,000 to about 18,000, or some 42 per cent ; while the receipts have run down from \$3,816.80 to \$2,127.95, or 44 per cent. The reason of this decrease is obvious. The direct distance from Boston to Revere is only four miles, and the Eastern Railroad is not the only means of communication between the two places ; but, while the Eastern road, charging for railroad distance, sells only eight tickets for a dollar, the Lynn & Boston Street Railway, charging for actual distance, sells twelve. Accordingly, the latter takes the travel, and the former loses it. The inference would seem to be that, so far as Revere is concerned, the railroad has retired from competition.

Whether this, from a business point of view, is judicious or not, is a matter for the management of the company to decide. The only alternative would have been to compute the distances to the stations between Boston and Revere by a direct line, and not by the railroad; and to have fixed the tariff accordingly, allowing an almost uniform rate, irrespective of actual mileage. This would apparently have accomplished two results: it would, in the first place, have enabled the railroad, running over a half-circle, to compete with the street-railways, running on direct lines; and, in the second place, it would, for purposes of suburban residence, have placed the whole territory within four miles of Boston, over the Eastern road, in a position of equal advantage with the territory within four direct miles on other roads. At present this is not the case, as the railroad fare to points four direct miles from Boston, on the main line of the Eastern, would seem to be nearly 50 per cent more than on other roads.

From a commercial point of view, therefore, the management of the Eastern road would, judging by its returns, seem to have made a serious mistake in not recognizing the exceptional geographical circumstances of its line. This Board, nevertheless, cannot make this mistake, if it is one, the ground for any recommendation. The railroad distance, and not the direct distance, is the recognized and general basis upon which tariffs are computed. They are so computed in this case, and in themselves are not unreasonable. If they place the road at a disadvantage, the remedy for the residents along its line is to take other means of conveyance, and this they have apparently done. It is not, however, for the Board of Railroad Commissioners to undertake to instruct those managing the roads as to the proper way to manage them commercially, provided that they do not manage them unreasonably. In the present case, the tariff complained of seems to be arranged reasonably enough, though wrong commercially. This Board, therefore, cannot interfere.

So far as the Revere travel to and from East Boston is concerned, however, the case is somewhat different. It has already been stated that this tariff is fixed at the same rates, irrespective of distance, as the tariff to and from the Causeway-street station. This was done with a view to preventing a diversion of Boston travel from the main line, by way of the East Boston ferry. The management did not propose to have the East Boston terminus competing with the Causeway-street extension, so it fixed the fares over the former at what amounted to an average rate of three cents per mile. Commercially, as has been seen, this policy has resulted in the East Boston route losing the travel, but not in the Causeway-street extension getting it; it simply went away from the road altogether, to the street-railways. Meanwhile, however, in itself this East Boston tariff is not reasonable.

That the Eastern Railroad should maintain any considerable train-service between Revere and East Boston, could not be expected, — there is no travel for it to accommodate. It would seem, however, that certain trains might be run there on a scale of fares, so far as Revere is concerned, which would draw population to that place, and secure to the road a remunerative travel which now it does not get. To do this it is not necessary for the road to compete with itself; it is merely necessary for it, by a judicious arrangement of trains and fares, taking advantage of its two lines, to recover the travel it has now lost. The Commissioners, therefore, while they would suggest to the management of the Eastern road a somewhat careful revision of the whole system of passenger tariffs on their suburban travel within four miles of Boston, — a revision the necessity of which is made obvious by a comparison of the returns received from that travel during the last five years, — would also recommend to that management a careful revision of its train service and passenger tariff between Revere and East Boston, with a view to regulating the same on a more reasonable basis.

By the Board of Railroad Commissioners.

WM. A. CRAFTS, *Clerk*.

REMONSTRANCE

OF G. W. ADAMS AND OTHERS AGAINST THE PROPOSED LOCATION OF A STATION AT ORIENT HEIGHTS.

IN BOARD OF RAILROAD COMMISSIONERS,
May 5, 1879.

This was a remonstrance of certain parties resident at Orient Heights, who objected to the location of a station at the point proposed by the Boston, Revere Beach & Lynn Railroad Company, in accordance with the recommendation of this Board, as appears in their Report of the 9th of January last (Tenth Annual Report, 1879, p. 398), and who desired to have it located on the original site, designated on the plat used at the sale at which they purchased their lots. The remonstrants appeared and were heard, and the corporation was represented by its president and superintendent. The ground was visited by the Board and examined on the 3d instant.

The objections to the site marked on the plat, and insisted upon by the remonstrants, are obvious, and were referred to in the original report of Jan. 9. They did not exist at the time the plat was made or the lots held by the remonstrants were bought. At that

time the Boston, Winthrop & Point Shirley road had not been built; there was accordingly no junction of that road with the Boston, Revere Beach & Lynn, and no necessity for a station at the junction. The junction now exists, and necessitates a station on Saratoga Street. Meanwhile the plat site is only 1,500 feet from that station. The site proposed by the company and recommended by this Board is 500 feet further on, making the interval between stations 2,000 feet; and, moreover, in the opinion of this Board, the last site is much the more convenient of the two, as being most accessible to the contiguous territory when it shall fill up with population.

Under these circumstances, the Commissioners are unable to see any ground for a revision of the conclusions arrived at as a result of the previous hearing. This Board is not a court of law. If the remonstrants in this case, under the terms of the sale at which they purchased their land, have a right to a station at the exact point designated for one on the plat, and no other, it is probable they could obtain their rights through a recourse to the courts. Though their demand thus insisted upon may be legal, if to the Commissioners it does not seem reasonable, they must secure its strict enforcement in the courts, and not through the assistance of this Board. In the present case, although reluctantly, yet in respectful compliance with the recommendation of the Board, the railroad company had agreed to locate a station at a point in the opinion of the Commissioners every way preferable to that marked on the plat, while virtually the same as far as the petitioners are concerned. The action of the corporation was, therefore, reasonable. The action of the remonstrants, in insisting upon their strict legal rights and nothing else, no matter how circumstances have changed, or what public inconvenience in the operation of the road they may occasion, seems to the Board highly unreasonable. They must, therefore, be referred to the courts for their enforcement. As the legal obligations of the company, as respects the location of this station, are uncertain, nothing further can be done in regard to the location of a station at either site until they are fixed. In compliance with the present remonstrance, therefore, the recommendation of this Board of the 9th of January last is withdrawn, and the parties to that and the present hearing will be notified accordingly.

By the Board.

WM. A. CRAFTS, *Clerk*.

WILLARD AND COMPANY, PETITIONERS, *v.* OLD COLONY RAILROAD COMPANY.IN BOARD OF RAILROAD COMMISSIONERS,
Aug. 6, 1879.

The petition in this case was as follows :—

“We, the subscribers, respectfully represent that we are expressmen doing business between Taunton and Boston over the Old Colony Railroad, in which business we have engaged since June 16, 1879, and into which we entered at the earnest solicitation of the Taunton public, they (the public) deeming it for their best interests that that branch of business should not be confined to one firm or company.

“We further represent that we have been notified by the superintendent of the said Old Colony Railroad Company, that after Aug. 1 our freights (express matter) will not be received by the company upon any of its trains.

“We, therefore, respectfully petition your body, and pray that our rights as expressmen and servants of the people may be protected, and that such steps may be taken as you may deem necessary to require the said railroad company to continue to receive our freights, and to secure to us such other accommodations as will conduce to the public good.”

This application was founded on chap. 372, Acts of 1874, sect. 138, which requires every railroad corporation to “give to all persons reasonable and equal terms, facilities, and accommodations for the transportation of themselves, their agents and servants, and of any merchandise,” &c. It appeared that an express company (Messrs. Davenport & Mason) have long transacted the business between Boston and Taunton; that the petitioners engaged in a like enterprise in June last, and that they have been notified by the railroad company that facilities for the business will no longer be afforded them.

At the hearing, Mr. Choate, president of the corporation, stated that it had been decided that the express business between Boston and Taunton shall be done by the Old Colony Railroad Company itself, and that no special facilities for doing such business will be furnished to any person or company.

This case is decided by *Sargent v. Boston & Lowell Railroad*, 115 Mass., 416. The head-note is as follows: “A railroad corporation is not bound to furnish an expressman, who seeks to carry on his business over its road, with facilities and accommodations different in kind from those furnished to the general public; and the fact that it has furnished him with such facilities for many years, and that he has thereby acquired a valuable business, is immaterial.

“The statute of 1867, chap. 339, obliging each railroad within the Commonwealth to give to all persons or companies reasonable and equal terms, facilities and accommodations for the transportation of merchandise, does not render it unlawful for such railroad to carry on the express business itself and to refuse to allow similar privileges to another person.”

The court say of the plaintiff: “The *gravamen* of his complaint is not that the defendants have refused to give him ‘equal terms, facilities and accommodations’ with other persons and companies, but simply that they have refused to give him such facilities as he requires for his special business as carrier over their roads. His claim must stand upon the right to demand such facilities independently of any enjoyment of like facilities by others. As an absolute right this cannot be maintained.

“The plaintiff contends that the ‘parcel department,’ which the defendants have established to the exclusion of the plaintiff and others desiring to make like arrangements, is in contravention of the equality required by the statute as much as if it were conducted in the interest of a third party. But we think the statute was intended to apply to the dealings of the railroad corporation with the public, and not to the mode in which it should arrange and conduct the different branches of its business as carrier. All that the plaintiff can demand is that, in each of those branches, he shall have equal terms with other persons and companies.”

The Act of 1867, chap. 339, which was construed in this decision, was re-enacted in the General Railroad Act of 1874, which is now in force. The petitioner, therefore, failed to show any case for the intervention of this Board; and his counsel concurred in this opinion.

PETITION

OF THE MASSACHUSETTS CENTRAL RAILROAD COMPANY FOR THE
BOARD TO FIX THE ROUTE OF THEIR EASTERN EXTENSION IN THE
TOWN OF BELMONT.

IN BOARD OF RAILROAD COMMISSIONERS,
Aug. 21, 1879.

Upon the application of the Massachusetts Central Railroad Company to this Board to fix the route of the eastern extension of their railroad in the town of Belmont, agreeably to the provisions of sect. 26 of the General Railroad Act of 1874, the directors of said company having failed to agree with the selectmen of said town as to the route of such extension, and a hearing having been

had before the Board, after due notice to parties, in the town of Belmont on the seventh day of August instant, and, by continuance, at the office of the Board in Boston on the nineteenth day of August instant; and the proposed location having been examined, the Board hereby approves the route of said extension in the town of Belmont, as shown upon a map filed in the office of the Board, entitled "Map showing the proposed route of the Massachusetts Central Railroad extension from a point in the town of Weston, with profile and grades;" signed by B. F. Hancox, civil engineer, with the variation of said route in the westerly part of said town, as shown on said map by a blue line between the points C and D respectively, so much of said line as lies in Belmont being described as follows: [The description is omitted.]

Note appended to the decree fixing the route.

In giving the certificate in this case, the Commissioners have only to decide what route shall be given for the railroad through the town of Belmont. The right to locate and construct a railroad through that town has been granted by the Legislature. The right is absolute. Some route must be fixed by us; the only question is, what route? The line originally proposed by the Massachusetts Central was rejected by the selectmen, chiefly for a reason which is obviated by the variation now proposed by the petitioners and sanctioned by the Board. They now present a line in part new; and the chairman of the selectmen says that if this route had been laid before them, it would probably have been accepted.

In fixing the route the Board has not passed upon the question as to the manner of crossing the highways or streets of Belmont. The point decided is the alignment, not the altitude. The question submitted to the selectmen of Belmont was only the question of line, not any question of the manner of crossing highways. They had no jurisdiction of the matter of grade-crossings, and any order by them on that point would have been invalid and void. An appeal does not enlarge jurisdiction. Consequently, no other question could come before the Board at this time than that which was before the selectmen.

The views of this Board as to grade-crossings have often been expressed, and are unchanged. In any future hearing on that subject, the members of this Commission will be free to act according to those views, notwithstanding their approval of the route fixed for the road.

APPLICATION

FOR A GRADE-CROSSING OF THE BOSTON & PROVIDENCE RAILROAD
IN ATTLEBORO' BY A TOWN WAY.

IN BOARD OF RAILROAD COMMISSIONERS,
Sept. 17, 1879.

This application was founded on a petition from the selectmen of Attleboro' to the County Commissioners, for the extension of East Peck Street, in East Attleboro', across the Boston & Providence Railroad, to meet the lines of West Peck Street; and for a crossing at the same level with the railroad. The petition was granted March 6, 1879. A view was held by this Board, June 27, and again on Sept. 10, and also a full hearing of witnesses and counsel.

It was urged that the proposed way was required for the convenience of local travel from North Attleboro' to Norton and Taunton; that the present crossing is dangerous, and that its dangerous nature would be relieved just so far as the new way was used.

The Board is unable to see that an additional crossing would decrease the danger to persons using the public ways of Attleboro'. Especially is this true of the danger arising from the flying switches made by the railroad employés; for these are made north of Peck Street, and would endanger all travellers who should use the proposed crossing. It is clear, also, that the proposed extension would be of little service unless a grade-crossing over the Attleboro' Branch Railroad is granted. Although that question is not directly before the Board, it is necessary to consider it incidentally. For if that crossing be not allowed, there is not such a demand for the crossing now proposed as to warrant the Board in saying that even public convenience requires it. And if that be allowed, then a most perilous grade-crossing will be established,—doubly perilous on account of the curve of the railroad and the obstructions to a view of approaching trains.

The views of the Board as to grade-crossings have often been set forth. They are reinforced by the fact, that, during the year ending Sept. 30, 1878, twenty-nine cases of injury at such crossings were reported, of which twenty were fatal; and the incomplete returns of the current railroad year show twenty-eight casualties, resulting in thirteen deaths. Moreover, the returns of every year show that gates and flagmen do not secure immunity from accidents. It was urged that electric signals will prevent accidents. The Board has recom-

mended the use of such signals, and will continue to urge it; but no signal as yet invented is a complete security against casualties at grade-crossings, and the Commissioners feel that with the best appliances extreme danger still attaches to them.

It needs a very strong case to justify the Board in allowing another of these dangerous nuisances to be created, especially in the heart of a crowded town. The Commissioners feel the force derived from the vote of the town, the petition of the selectmen, and the adjudication of the County Commissioners. But no such necessity has been shown as to warrant the Board in licensing the proposed danger to the inhabitants of this town and to travellers using its public ways.

If there were great need of a road for travellers passing from North Attleboro' to the Taunton or Norton road, such travel could be accommodated by a way crossing the Boston & Providence Railroad by a bridge at a point north-east of Peck Street.

The evidence shows that Park Street has been occupied by the railroad in a manner dangerous to travellers, and manifestly illegal. There may have been some exaggeration, and the Board has received the written statement of the superintendent, that flying switches are made only once each day, except that about ten times in a year a flying switch is made of a car into the lumber-yard, after the train has passed. But the necessary obstruction to such a double crossing is unavoidably a cause of inconvenience and peril; and this has been increased by the mode of making up and breaking up trains. If it is true, as alleged, that trains frequently occupy the street for ten minutes, or that it is occupied by freight cars without giving three minutes since the last occupation by cars or engines, then a statute law has been violated, and the remedy is simple. But the Commissioners believe that now that the attention of the corporation has been called to this point, the nuisance will be abated, and the danger greatly diminished. The erection of gates at the present crossing would still further diminish the existing danger.

It is also to be noticed that the dangers of the crossing, according to the evidence, are increased by the recent enclosure, by a fence, of what was formerly an open space, capable of being used by travellers in case of need. If, as the Board is informed, that fence was constructed only for the purpose of maintaining a right in the land, it would seem to be easy to arrange for its removal. But, however this may be, the Board cannot believe that there is a public *necessity* for the crossing which is now asked; no doubt it would be a *convenience* to many inhabitants living near the spot, as it would shorten, by about eight hundred feet, the distance to be travelled from one part of the village to another. Such public convenience justifies the laying out of an ordinary way; but this is not the "necessity" which the law

requires to be proved before the crossing of a railroad, and especially such a dangerous crossing, can be granted. The Board, therefore, must decline to consent that the town-way, at the point petitioned for, shall be laid out across the railroad at the same level therewith.

By the Board.

WM. A. CRAFTS, *Clerk.*

WHISTLING OF LOCOMOTIVES.

IN BOARD OF RAILROAD COMMISSIONERS,
Sept. 17, 1879.

The petition of C. Ellery Stedman and others, that measures be taken to abate the disturbance caused by the whistling of locomotives on the New York & New England Railroad.

This petition, which was heard Sept. 5, was numerously signed by persons living on and near Bird and Dudley Streets in Boston. The testimony showed that the frequent use of the whistle, and especially the new mode of using it, known as the Pennsylvania system, is a great annoyance to the residents in that part of the city; that fruit-trains, passing at two, three, or four o'clock in the morning, were a peculiar annoyance; that houses in the neighborhood could not be let on account of this perpetual disturbance; that illness was aggravated and cures were retarded by the loss of sleep to the sick; and that it was believed that cases might sometimes result fatally, where the patient could be saved but for this trouble. The danger of accidents arising from the frightening of horses was also set forth.

At Dudley Street there is a gate; and it was admitted that there, and at like crossings, the object of the whistle is as much to call the attention of gatemen and other employés as it is to warn travellers of danger.

The president of the company admitted and regretted the annoyance caused by the whistle now in use; but stated that it was adopted, after full discussion and consideration, as the most effective signal. He felt bound to use every practicable means of giving warning, as, with all precautions, railroads do not always avoid disasters at grade-crossings. He also stated that, in 1854, a depression of the highway at the Dudley-street crossing was ordered by the County Commissioners, but nothing was done; and that, in 1866, such a depression was asked by the railroad corporation, and refused by the County Commissioners, who sanctioned the grade-crossing.

Mr. W. H. Davis was also heard on a petition of like character with the above, relating to the whistling at a crossing near Evans

Street. The evidence was similar to that on Dr. Stedman's petition. It was also stated that a woman was lying at the point of death near this spot, and that her life might depend upon the cessation of the annoyance. And it appeared that, upon the unofficial request of the Board, made on Mr. Davis's complaint, immediate orders were given for the temporary disuse of the whistle at this point. A like favor had also been granted in a similar case a short time since.

An informal complaint was subsequently made to the Board on behalf of many residents on the Woonsocket division of the road. The parties were not desirous of a separate hearing; and they agreed that the matter might be considered in connection with the petition of Dr. Stedman and others.

The position of this Board in acting upon such questions as this, is made embarrassing by the law as laid down by the Supreme Court. If a railroad company, complying with the statutes as to danger signals at crossings, were held free from liability to persons injured by collisions thereat, the duty of advising a corporation would be less difficult. When it was first enacted that a bell of a certain weight should be rung at a fixed distance from each grade-crossing, it seemed to railroad managers that compliance with this statute-duty would always insure them against liability; but, upon trial, this was found to be a mistake. In *Bradley v. Boston & Maine Railroad*, 2 Cushing, 539, Chief Justice Shaw says, "The statute makes certain positive regulations, and the defendants, at their peril, are bound to comply with them; but there are no negative words, and there is no implication that a compliance was to absolve them from any duty which they were under before; and, therefore, if other precautions were necessary, the defendants were still bound to take them.

"So, whether, under the circumstances, if the bell of the locomotive could not be heard, it was the duty of the engineer to sound the whistle, we think it was rightly left to the jury whether reasonable precautions had been taken to give such notice as would prevent collision; the fitness of any particular expedient suggested depending upon the exigency of the case."

In *Linfield v. Old Colony Railroad Corporation*, 10 Cushing, 562, it was held that compliance with the law requiring a bell to be rung when approaching a railroad crossing, will not excuse a railroad company from the consequences of a collision, if the jury think that the company ought, under the circumstances, to have used other precautionary measures to avoid a collision, and unreasonably neglected so to do.

The same doctrine has been recognized in the famous case of *Shaw v. Boston & Worcester Railroad Company*, and other cases, and is the settled law of the State. Applying it to the present statute,

which requires whistling or bell-ringing, it would probably be held that, while it would be a compliance with the law to do either, yet in each case it would be a question for the jury to say whether, under the circumstances, it was not the duty of the corporation to do both. It might even be a question for the jury whether the most effective whistle was used, and whether a mode of whistling more startling than that employed by the railroad company in a given case would not have prevented the casualty.

It will be borne in mind, also, that no request or advice of the Commissioners will impair or affect the liability of the corporation following that advice. It should be added that railroad companies fear not only well-founded suits; they have an almost equal dread of groundless actions, brought in reliance upon sympathy and prejudice. And, even where the verdict is for the defendant, litigation is costly to the corporation. These reasons may well make railroad companies anxious to adopt not only the most effective means of warning, — this they would do for humanity's sake, — but they also desire to adopt those that can be made to appear to a jury to be the most effective. These reasons, also, make it a delicate duty to advise a railroad company to discontinue at any place the use of the most startling danger signals. Yet it is a duty, in cases where the annoyance caused by the signal is out of all proportion to the service rendered by it. And this we regard as the case with the whistle, as used by the New York & New England Railroad, within the city limits, and in all thickly settled villages. It does not appear that the value of the peculiarly disagreeable whistle, adopted on this and on some other roads, is at all in proportion to its power of annoyance. Nor does it appear that, for ordinary purposes, the ringing of a bell is not as effectual as any use of the whistle. And it is evident that, if the whistle could be reserved for its legitimate use as a danger signal, it would gain in efficiency when so employed. The Board has heretofore expressed its belief that the constant use of the whistle diminishes its value when it is really needed. (Sixth Annual Report, p. 69.) It still feels that the habitual use of the whistle as a "precautionary signal against a possible danger" is an abuse; and that peaceable citizens, lawfully at their homes, should not be disturbed to save possible trespassers from the consequences of their reckless and illegal acts. Nor should they be so disturbed and deprived of needed rest and sleep, in order that employes of the road may be called to the performance of their duty.

Since the Sixth Annual Report, when this subject was discussed, improvements in the use of electric signals have strengthened the argument against such a use of the whistle; and the experience of other roads has been added to that of the Boston & Albany, then

cited, to show the practicability of dispensing with annoying methods of commanding the attention of employés.

The Board, therefore, recommends to the managers of the New York & New England Railroad that they discontinue the use of the whistle within the limits of Boston, and in all compact villages, except as a danger signal; and that, as soon as may be, they provide electric signals for the crossings which are protected by gates or flagmen. And the Board hopes that, at an early day, all grade-crossings will be, either voluntarily, or in obedience to law, supplied with these or some other effective signals.

The Board would also recommend, on the testimony laid before it, that renewed application be made to the proper authorities for such a depression of the highway at the crossing of Dudley Street as to make it possible for the railroad to cross by a bridge.

By the Board.

WM. A. CRAFTS, *Clerk.*

RELOCATION OF PASSENGER STATION IN LITTLETON.

IN BOARD OF RAILROAD COMMISSIONERS,
Oct. 3, 1879.

This was a petition of the Fitchburg Railroad Company for approval of a relocation of their station in Littleton by moving it about forty feet southward of its present position, continuing it on the same side of the railroad as now. The relocation was formally approved by the selectmen, and, as it appeared, was favored by a very large majority of the people of the town. It is admitted by all parties, that there has for a long time been a necessity for rebuilding and enlarging the station.

The objection urged to the granting of this petition was, that the station ought to be placed on the east side of the railroad, instead of the west side, where it now stands: (1) because it would better accommodate the people, nine-tenths of whom live on the east side; (2) because there would be less crossing of the tracks; and therefore less danger, if the station were placed on the same side with the majority of the inhabitants; (3) because, it was alleged, the proposed new site would give a better view of approaching trains, and thus diminish the danger in operating the road.

It will be seen that it is only by consent of the railroad company, that this Board has jurisdiction of their petition; and that it has no jurisdiction to order the accomplishment of the object desired by the remonstrants. It has been held by the chief justice of the

Supreme Court of this State, that to move a station four hundred and fifty feet, on the same side of the railroad, was not a relocation.

If the railroad company, therefore, had rebuilt their station forty feet from the present site, no board and no court could have prevented them from so doing. This Board has taken jurisdiction because the petitioners here assumed that this is a relocation; and no one has denied it, or objected to the trial of the question.

It is quite as plain that no action of the Board on this petition can assure the removal of the station as desired by the remonstrants. Practically, a refusal to grant this petition would result in the rebuilding of the station on or near its present site, or in the retention of the present station itself.

The Commissioners have considered the objections to the present location, and the arguments advanced to show the superiority of a proposed relocation, because we can suppose a case where the location of a station would be so dangerous that the Board would, of its own motion, recommend a change, and *a fortiori* would refuse to sanction a relocation involving a slight change, but retaining the dangerous character of the old position. But it is evident that it must be a strong and clear case of manifest danger, that would warrant the Board in refusing such a relocation when asked by the railroad corporation, approved by the town authorities, and desired by a great majority of the people.

It need hardly be said that arguments from mere convenience would not induce this Board to refuse such a relocation under such circumstances. The only valid objection to the petition would be that of peril to life and limb. This objection has not been sustained by such proof as would justify the Board in refusing the petition, sustained as it is by the formal assent of the selectmen, and by the informal expression of the people's wishes.

The officers of the railroad, who are experts, and whose chief interest is to make the station a safe one, regard the present location, with the proposed improvements, as the safer of the two. They lay stress upon the fact that conductors and others can see better from the inside of a curve than from the outside. It has also been, as a general rule, considered advisable to have the stations placed on the inward track in towns near the metropolis. There are exceptions to this (notably at Concord and Waltham on this railroad); and there are some reasons for preferring the other position in this place; but they leave the matter doubtful, and, at most, do not make such a case as would warrant the Board in interposing an obstacle to the much-needed improvement of a new station.

The same may be said of the fact that there will be less crossing at grade, if the station is removed. It is no doubt true; and it

may be that the members of the Board, if they were inhabitants of Littleton, would prefer to have the station on the side of the railroad toward the village. But such a state of facts has never been held to be a ground for recommending, to an unwilling company, the removal of its station against the remonstrance of the people. These views are reinforced by the fact that investments have been made on the westerly side of the track with a view to the permanent location of the station there. It was also urged that there was no fit place for the station on the easterly side of the track; and it is plainly more convenient for the road to have its passenger station and freight depot on the same side of the track.

It has been said that the wishes of the people in this matter should be of little weight, because they have been misled to believe that the removal of the station will secure the building of a new highway already ordered by the County Commissioners, and that they may escape the cost of constructing that way if this petition is granted. It is also said that the cost of that highway has been greatly exaggerated by report. All this may be true, but the Board is not justified in disregarding the wishes of the people and the action of their chosen officials by any such consideration. The Board has considered the case as if the highway were already actually constructed; and no reason was given at the hearing why the order should not be carried out under the statute provisions. If this view had not been taken, there would have been force in the remonstrants' request for a postponed hearing, to await the final decision of that question. The Board has not considered the objection of the petitioners that the new station and new highway would, together, make a new grade-crossing necessary: (1) because such an argument is too remote; (2) because the objections of the remonstrants to the present crossing are of full force without considering another crossing as possible; (3) because recalling the expressed opinions and decisions of this Board as to grade-crossings, it can hardly be supposed that a grade-crossing at this point would be granted by the Board as now constituted, or even that they would be asked to grant it.

The Board has been requested to postpone a decision if the petition is not refused, so that the order of the County Commissioners, for the building of the new highway, may have full effect before final decision. One argument for this postponement has already been disposed of. The other reason for urging it is, that when the people of Littleton find that the new road is certain to be built, they will change their opinion and concur with the remonstrants.

The Commissioners cannot regard this as a reason for delaying assent to an improvement so long needed and so much desired as the rebuilding of this station. So far as the action of this Board de-

pend upon the expression of popular opinion, it must believe that the intelligent people of Littleton know what they desire, and are not likely soon to change their opinion.

It is, therefore, ordered that the written assent of this Board be given to the relocation of the station at Littleton as petitioned for by the Fitchburg Railroad Company. And as public convenience imperatively demands the rebuilding of the station, and as, without fault of the railroad company, there has been long delay in acting upon the matter, it is recommended that the station be reconstructed as soon as possible.

By the Board.

WM. A. CRAFTS, *Clerk.*

HIGHWAY CROSSING OF THE GRAND JUNCTION RAILROAD NEAR COTTAGE-FARM STATION.

IN BOARD OF RAILROAD COMMISSIONERS,
Nov. 18, 1879.

In the matter of the petition of Edmund Dwight and others for relief as to the crossing of the Grand Junction Railroad over the highway near Cottage Farm Station.

The petitioners were heard on Nov. 5, and a view was had the same day. No question was made by the officers or counsel of the Boston & Albany Railroad Company, as to the annoyance and danger caused by operating the road at this crossing. The Commissioners recommend, in order to abate the evils complained of and admitted, —

1. That a screen be erected to cover the turn-table, and thus to shield the engine from sight while occupying it. This, with the mufflers now used on this road, will, in the opinion of the Board, relieve all difficulty from that cause. The testimony, as to the annoyance from this source, all related to a time when these appliances were not in use; and the Board has especially noticed their satisfactory working on this road.

2. That all switching on this crossing be discontinued, except such as is absolutely necessary; and this, we are assured, will afford substantial relief.

3. It is evident that this crossing must be a constant source of annoyance and danger, until the grade of the highway and the railroad are separated. But this is beyond the jurisdiction of the Railroad Commission. Application for this must be made, if at all, to another tribunal. Nor do we see how this can be accomplished

on equitable terms without special legislation, because under existing laws the city of Cambridge could not be compelled to share the expense, nor could it voluntarily do so. The Board, therefore, only suggests this as the sole radical cure for a manifest evil.

By the Board.

WM. A. CRAFTS, *Clerk.*

PETITION OF THE SELECTMEN

OF ABINGTON, SOUTH ABINGTON, ROCKLAND AND HANOVER, THAT THE 8.40 A.M. TRAIN FROM BOSTON TO PLYMOUTH MAY START AT AN EARLIER HOUR, AND THE 3.40 TRAIN FROM PLYMOUTH TO BOSTON AT A LATER HOUR.

IN BOARD OF RAILROAD COMMISSIONERS,
BOSTON, Nov. 22, 1879.

A full hearing was held on Nov. 22, 1879. The selectmen of the towns above named, and of Plymouth, Kingston, Plympton, Halifax, Hanson, Bridgewater, Middleboro' and Wareham were notified, but none of these last-named towns were represented, except Middleboro'.

The chief grievance of the petitioning towns, in regard to the morning train, was that their business men could not receive their letters in time to answer them in the morning; and an answer in the afternoon would not generally be received before the next day. These four towns contain a busy population of about twelve thousand, who are largely engaged in manufactures. The grievance was proved to be a serious injury to business, which, perhaps, was felt the more because rival manufacturers on another line of the road have had better facilities. It was added that when it is necessary to visit these towns on business, or to employ mechanics from Boston, the day was made short by the time of running the trains. Detention at the North Abington station, for want of close connection with trains on the Hanover Branch, was another cause of complaint. The early afternoon train from Plymouth was complained of as shortening the time for county business at the shire town. But this was not pressed, and the portion of the petition relating to it was practically withdrawn.

The Old Colony Railroad Company, by its president, expressed a desire to do whatever would best serve the people on their route; but it was stated that a change, like the one now proposed, had once been made, and had been abandoned because it incommoded the southern part of Plymouth County. The chairman of the Selectmen of Mid-

dleboro' stated that while his town was indifferent, having a train which would connect with the proposed one for Plymouth, yet the people of the lower towns (Wareham, Rochester, &c.) would not be able to connect with the morning train for Plymouth if it came at an earlier hour. Thus the people having occasion to attend court at Plymouth, including Probate and Insolvency Courts, would be obliged to go a day in advance, or to use private conveyance for a part or the whole of their journey. A note from Judge Wood expressed the same apprehension.

To the suggestion that the Cape train, on which these towns depend, might come at an hour early enough to make this connection, it was replied that, besides the inconvenience to all the Cape towns, this would disturb an important arrangement made with the business men of Brockton. They, too, desire to answer their morning letters by a morning mail, and this could not be done if the upward train from the Cape arrived at an early hour.

It became the duty of the Commissioners to balance the inconveniences now felt by the petitioners against those to which the people in the southern towns would be subjected by the proposed change. And no doubt was felt that the great annoyance and loss caused to the business of the petitioners far exceeds the expense and trouble caused by the hindrance to the slight amount of travel which will be accommodated by the desired change. Regretting this inconvenience, the Board felt no hesitation in recommending that the hour of the morning train from Boston to Plymouth be changed to 8 A.M.

By the Board.

WM. A. CRAFTS, *Clerk.*

EXPENSES OF OFFICE.

FOR THE YEAR ENDING DECEMBER 31, 1879.

Rent	\$1,175 00
Care of office and messenger	363 67
Printing blank returns and circulars	173 63
Postage	150 70
Stationery	121 72
Law and other books	68 39
Newspapers and magazines	48 10
Services of expert	50 00
Advertising	97 38
Officers' fees, serving subpoenas, &c.	23 40
Binding	38 00
Carpet, furniture and repairs	156 77
Fuel, ice and gas	52 59
Test colors, instruments, lithogram	15 63
Express and telegraph	9 11
Painting sign and miscellaneous	27 90
	\$2,571 99

Received of railroad corporations for printing their annual reports, and paid into the treasury of the Commonwealth . . \$1,680 00

BOARD OF RAILROAD COMMISSIONERS.

THOMAS RUSSELL, Boston, <i>Chairman</i>	Term expires July, 1882.
ALBERT D. BRIGGS, Springfield	“ “ July, 1880.
EDWARD W. KINSLEY, Boston	“ “ July, 1881.

Clerk—WILLIAM A. CRAFTS, Boston.

Supervisor of Railroad Accounts—JOSEPH H. GOODSPEED, Boston.

Office No. 7 Pemberton Square, Boston.

PART II.

RAILROAD REPORTS

FOR THE

YEAR ENDING SEPTEMBER 30, 1879.

REPORT

OF THE

ASHBURNHAM RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$3,302 04
Total expense (including taxes)	3,101 76
Net income	200 28
Interest accrued during the year	420 00
On funded debt \$420 00	
Balance for the year (deficit)	219 72
Balance at commencement of year (surplus)	146 07
Balance September 30, 1879 (deficit)	73 65
ANALYSIS OF EARNINGS.	
From local passengers	\$1,617 08
express and extra baggage	173 95
mails	123 56
<i>Total earnings from passenger department</i>	<i>1,914 59</i>
From local freight	1,387 45
<i>Total earnings from freight department</i>	<i>1,387 45</i>
TOTAL TRANSPORTATION EARNINGS	3,302 04
ANALYSIS OF EXPENSES.	
Taxes	\$15 74
General salaries, office expenses and miscellaneous	17 16
Repairs of road	393 83
New ties	122 98
Fuel, locomotive power	1,181 93
Oil and waste	76 52
Salaries, wages and incidentals of passenger trains	1,293 60
TOTAL EXPENSES	3,101 76
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$30,000 00
Equipment account	6,000 00
Profit & Loss (deficit)	73 65
TOTAL ASSETS	\$36,073 65
LIABILITIES.	
Capital stock	\$30,000 00
Funded debt	6,000 00
Vouchers and accounts	73 65
TOTAL LIABILITIES	\$36,073 65

MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	7,800
TOTAL TRAIN MILEAGE	7,800
Number of local passengers	11,975
TOTAL NUMBER OF PASSENGERS	11,975
Local passenger mileage (local passengers carried one mile)	29,937
Number tons of local freight carried	2,436
TOTAL NUMBER TONS FREIGHT CARRIED	2,436
Local freight mileage (tons local freight carried one mile)	6,590
Average number of cars in passenger trains	1
Average number of persons employed	3
DESCRIPTION OF ROAD.	
Length of main line of road from Ashburnham to Ashburnham Centre	2,500 miles.
Length of main line of road in Massachusetts	2,500 "
Aggregate length of sidings and other tracks not above enumerated	.379 "
Same in Massachusetts	.379 "
Aggregate length of track, computed as single track	2,879 "
Same in Massachusetts	2,879 "
Total miles of road operated by this company	2,500 "
Total miles of road operated by this company in Massachusetts, ...	2,500 "
Number of stations in Mass. on all roads operated by this Co.	3
Number of stations on all roads owned by this company	3
Same in Massachusetts	3
EQUIPMENT.	
Number of locomotives	1
Number of passenger cars	1

NAME AND RESIDENCE OF OFFICERS.

George C. Winchester, *President*, Ashburnham, Mass. John H. Wilkins, Ashburnham, Mass., *Superintendent*. John H. Wilkins, *Treasurer and Clerk of Corporation*.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

George C. Winchester, George G. Rockwood, George W. Eddy, Frank J. Litch, John H. Wilkins, —all of Ashburnham, Mass.

PROPER ADDRESS OF THE COMPANY.

ASHBURNHAM RAILROAD CO., ASHBURNHAM, MASS.

GEO. C. WINCHESTER,
G. G. ROCKWOOD,
J. F. LITCH,

Directors.

JOHN H. WILKINS,
Treasurer and Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, ss. November 22, 1879. Then personally appeared George C. Winchester, George G. Rockwood and J. Frank Litch, and severally made oath to the truth of the foregoing statement by them subscribed.

JOHN H. WILKINS, *Notary Public.*

GENERAL INFORMATION.	
Number of wooden bridges	1
Number of crossings of highways at grade	7
Number of crossings at which there are neither electric signals, gate nor flagmen	7
CAPITAL STOCK.	
Capital stock authorized by charter	\$30,000 00
Capital stock authorized by votes of company	30,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	\$30,000 00
Total number of stockholders	4
Number of stockholders in Massachusetts	4
Amount of stock held in Massachusetts	\$30,000 00
DEBT.	
Funded debt, as follows:—	
First mortgage bonds, due June 1, 1883, rate of interest 7 per ct.	\$6,000 00
Interest paid on same during year	\$420 00

REPORT

OF THE

ATTLEBOROUGH BRANCH RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to, and operated by, the Boston & Providence Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$9,255 13
Net income	9,255 13
Dividends declared (seven per cent)	9,219 00
Balance for the year (surplus)	36 13
Balance at commencement of year	353 83
Balance September 30, 1879 (surplus)	389 96
ANALYSIS OF EARNINGS.	
Rents for use of road	\$9,219 00
Interest on bonds	36 13
TOTAL INCOME FROM ALL SOURCES	9,255 13
PROPERTY ACCOUNTS : CHARGES AND CREDITS DURING THE YEAR.	
Government bonds at par	\$1,350 00
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$130,706 73
Government bonds	1,350 00
Cash	33 23
TOTAL ASSETS	\$132,089 96
LIABILITIES.	
Capital stock	\$131,700 00
Profit & Loss balance (surplus)	389 96
TOTAL LIABILITIES	\$132,089 96
<i>Present or Contingent Liabilities not included in the Balance Sheet.</i>	
County Commissioner decrees not accepted :—	
George Price, land damages	\$294 25
Deborah Capron's heirs	160 50
TOTAL (not included in Balance Sheet)	\$454 75
DESCRIPTION OF ROAD.	
Length of main line of road in Attleborough	4 miles.
Length of main line of road in Massachusetts	4 “
Total length of road belonging to this company	4 “
Aggregate length of sidings and other tracks not above enumerated	1 mile.
Same in Massachusetts	1 “
Aggregate length of track, computed as single track	5 miles.

Same in Massachusetts	5 miles.
Number of stations on all <i>roads owned</i> by this company	2
Same in Massachusetts	2

NAME AND RESIDENCE OF OFFICERS.

H. F. Barrows, *President*, North Attleborough, Mass. H. N. Daggett, *Treasurer*, Attleborough Falls, Mass. J. R. Bronson, *Clerk of Corporation*, Attleborough, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

H. F. Barrows, North Attleborough, Mass. H. N. Daggett, Attleborough Falls, Mass. J. R. Bronson, Attleborough, Mass. F. G. Whitney, North Attleborough, Mass. A. A. Folsom, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

ATTLEBOROUGH BRANCH RAILROAD CO.,
ATTLEBOROUGH FALLS, MASS.

H. F. BARROWS,
H. N. DAGGETT,
J. R. BRONSON,

Directors.

H. N. DAGGETT,

Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

BRISTOL, SS. ATTLEBOROUGH, October 21, 1879. Then personally appeared H. F. Barrows, H. N. Daggett and J. R. Bronson, and severally made oath to the truth of the foregoing statement by them subscribed.

Before me,

GARDNER C. WRIGHT,

Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards	1
Number of wooden bridges (aggregate length, 28 feet)	1
Number of crossings of highways at grade	11
Number of crossings at which gates or flagmen are maintained, ...	1
Number of crossings at which there are neither electric signals, gates nor flagmen	10

CAPITAL STOCK.

Capital stock authorized by charter	\$133,000 00	
Capital stock authorized by votes of company	131,700 00	
Capital stock issued (number of shares, 1,317); amount paid in, ...		\$131,700 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.		131,700 00
Total number of stockholders	37	
Number of stockholders in Massachusetts	37	
Amount of stock held in Massachusetts	\$131,700 00	

REPORT

OF THE

BERKSHIRE RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to, and operated by, the Housatonic Railroad Company of Connecticut.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$42,585 17
Total expense (including taxes)	6,644 80
Net income	35,940 37
Dividends declared (5.96 per cent)	35,792 70
Balance for the year (surplus)	147 67
Balance at commencement of year (surplus)	13,600 04
Balance September 30, 1879 (surplus)	13,747 71
ANALYSIS OF EARNINGS.	
Rents for use of road	\$42,000 00
Income from all other sources:—	
Dividends on 80 shares Berkshire Railroad stock	\$560 00
Interest on balance in bank	25 17
	585 17
TOTAL INCOME FROM ALL SOURCES	42,587 17
ANALYSIS OF EXPENSES.	
Taxes	\$6,207 30
General salaries, office expenses and miscellaneous	437 50
TOTAL EXPENSES	6,644 80
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$600,000 00
Berkshire Railroad stock (80 shares)	6,000 00
Cash	7,992 78
TOTAL ASSETS	\$613,992 78
LIABILITIES.	
Capital stock	\$600,000 00
Dividends unpaid	245 07
Profit & Loss balance (surplus)	13,747 71
TOTAL LIABILITIES	\$613,992 78
DESCRIPTION OF ROAD.	
Length of main line of road from Sheffield to W. Stockbridge, ...	22 miles.
Length of main line of road in Massachusetts	22 “
Total length of road belonging to this company	22 “
Aggregate length of sidings and other tracks not above enumerated	2 “
Same in Massachusetts	2 “

Aggregate length of track, computed as single track . . .	24 miles.
Same in Massachusetts	24 "
Number of stations on all roads owned by this company . . .	5
Same in Massachusetts	5

NAME AND RESIDENCE OF OFFICERS.

John H. Coffing, *President*, Great Barrington, Mass. D. R. Williams, *Treasurer*, Stockbridge, Mass. D. R. Williams, *Clerk of Corporation*, Stockbridge, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

John H. Coffing, Great Barrington, Mass. Loring G. Robbins, Great Barrington, Mass. John L. Dodge, Great Barrington, Mass. Frederick T. Whiting, Great Barrington, Mass. D. R. Williams, Stockbridge, Mass.

PROPER ADDRESS OF THE COMPANY.

BERKSHIRE RAILROAD CO., STOCKBRIDGE, MASS.

JOHN H. COFFING,
JOHN L. DODGE,
F. T. WHITING,
D. R. WILLIAMS,

Directors.

D. R. WILLIAMS,

Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

BERKSHIRE, SS. GREAT BARRINGTON, MASS., October 8, 1879. Then personally appeared John H. Coffing, John L. Dodge, F. T. Whiting and D. R. Williams, *Directors*, and D. R. Williams, *Treasurer*, of the Berkshire Railroad, and severally made oath to the truth of the foregoing statement by them subscribed.

F. N. DELAND,
Notary Public.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	4
Number of wooden bridges	7
Number of crossings of highways at grade	27
Number of crossings at which there are neither electric signals, gates nor flagmen	27

CAPITAL STOCK.

Capital stock authorized by charter	\$800,000 00	
Capital stock authorized by votes of company	600,000 00	
Capital stock issued (number of shares, 6,000); amount paid in, ...		\$600,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.		600,000 00
Total number of stockholders	230	
Number of stockholders in Massachusetts	128	
Amount of stock held in Massachusetts	\$421,100 00	

REPORT

OF THE

BOSTON & ALBANY RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.

Total income		\$6,427,463 36
Total expense (including taxes)		3,723,824 58
Net income		2,703,638 78
Rentals (specifying amount to each company):		75,000 00
Ware River Railroad	\$52,500 00	
Pittsfield & North Adams Railroad	22,500 00	
Interest accrued during the year		470,000 00
Dividends declared (eight per cent)		1,600,000 00
Balance for the year (surplus)		558,638 78
Surplus at commencement of year	2,425,060 42	
Deduct uncollectible accounts	42,475 20	
Surplus at commencement of year as so changed		2,382,585 22
Surplus September 30, 1879		2,941,224 00

ANALYSIS OF EARNINGS.

From local passengers		\$1,417,705 67
through passengers (to and from other roads)		747,994 01
express and baggage		195,080 91
mails		85,731 79
<i>Total earnings from passenger department</i>		<i>2,466,512 38</i>
From local freight		1,719,130 00
through freight (to and from other roads)		1,869,708 88
other sources, freight department		38,803 27
<i>Total earnings from freight department</i>		<i>3,627,642 15</i>
TOTAL TRANSPORTATION EARNINGS		6,074,154 53
Income from all other sources (specifying the same):		353,308 83
Rent of buildings	\$117,135 60	
Elevators and warehouses	199,813 07	
Gravel	29,923 39	
Interest	6,436 77	

TOTAL INCOME FROM ALL SOURCES	\$6,427,463 36
--	-----------------------

ANALYSIS OF EXPENSES.

Taxes		\$291,119 36
General salaries, office expenses and miscellaneous		64,157 60
Insurance		23,210 07
Telegraph expenses		17,784 45
Repairs of road		316,417 06
Iron rails		13,800 00
[Number tons laid, 460.]		
Steel rails		47,872 00
[Number tons laid, 1,088.]		
New ties		113,237 22
[Number laid, 247,999.]		
Repairs of bridges		28,151 43
Repairs of buildings		129,095 86
Repairs of machine-shops and machinery		2,195 28
Repairs of fences, road crossings and signs		18,522 34
Removing ice and snow		11,768 82
Repairs of locomotives		218,327 27
New locomotives		27,000 00

Fuel, locomotive power	\$480,062 86
Water and water stations	18,830 14
Fuel for cars, stations, shops and stationary engines	35,805 08
Oil and waste	49,451 83
Switchmen, watchmen, flag and signal men	156,732 90
Repairs of passenger, mail and baggage cars	68,560 33
Damages and gratuities to passengers	25,743 08
Salaries, wages and incidentals of passenger trains	177,455 26
Salaries, wages and incidentals of passenger stations	280,238 76
Repairs of freight cars	214,962 61
Damages and gratuities, freight	11,676 25
Salaries, wages and incidentals of freight trains	493,155 24
Salaries, wages and incidentals of freight stations	388,491 48

TOTAL EXPENSES	\$3,723,824 58
--------------------------	----------------

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$24,368,716 50
Equipment account	3,145,400 00
Other permanent investments (<i>as follows</i>):	1,202,416 18
Lands in Boston and Worcester	\$119,678 96
Lands in South Boston flats	505,098 22
Stock of West Stockbridge Railroad	13,000 00
Stock of Pittsfield & North Adams Railroad	61,954 00
Stock of Hudson River bridges	475,485 00
Bonds of Jamestown and Franklin	27,200 00
Cash items (<i>as follows</i>):	1,326,356 89
Cash	708,193 07
Bills receivable	253,000 00
Due from agents and companies	365,163 82
Other assets (<i>as follows</i>):	904,036 23
Materials and supplies	454,036 23
Improvement fund	450,000 00

TOTAL ASSETS	\$30,946,925 80
------------------------	-----------------

LIABILITIES.

Capital stock	\$20,000,000 00
Funded debt	7,000,000 00
Unfunded debt (<i>as follows</i>):	1,005,701 80
Interest unpaid	\$411,705 00
Dividends unpaid	846,572 00
Notes payable	105,000 00
Vouchers and accounts	42,424 80
Profit & Loss balance and Improvement fund	2,941,224 00

TOTAL LIABILITIES	\$30,946,925 80
-----------------------------	-----------------

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	1,366,103
Freight-train mileage	3,083,863
Switching-train mileage	370,741
Other train mileage	69,065
TOTAL TRAIN MILEAGE	4,889,772
Number of season-ticket passengers *	1,309,727
Number of local passengers (including season)	4,173,883
Number of through passengers	1,025,277
TOTAL NUMBER OF PASSENGERS	5,199,160
Local passenger mileage (local passengers carried one mile)	68,040,367
Through passenger mileage (through passengers carried one mile)	33,207,954
Number of tons of local freight carried	1,324,191
Number of tons through freight carried	1,413,905
TOTAL NUMBER TONS FREIGHT CARRIED	2,738,096

* Reckoning twelve *passengers* per week for time of each season ticket.

Local freight mileage (tons local freight carried one mile) . . .	99,520,790
Through freight mileage (tons through freight carried one mile) . . .	225,964,009
Average weight of passenger trains (exclusive of passengers) . . .	156 tons.
Average weight of freight trains (exclusive of freight) . . .	212 "
Average number of persons employed	4,017

DESCRIPTION OF ROAD.

Length of main line of road from Boston to Albany	201.65 miles.
Length of main line of road in Massachusetts	162.35 "
Length of main line of road in New York	39.30 "
Length of double track on main line	201.65 "
Same in Massachusetts	162.35 "
Branches owned by company: —	
Grand Junction	9.30 "
Brookline	1.55 "
Newton Lower Falls	1.10 "
Saxonville	3.70 "
Milford	12 "
Milbury	3 "
Chatham & Hudson	17.33 "
Total length of branches owned by company	47.98 "
Total length of branches owned by company in Massachusetts	30.65 "
Total length of branches owned by company in New York	17.33 "
Length of double track on branches	1 mile.
Total length of road belonging to this company	249.63 miles.
Aggregate length of sidings and other tracks not above enumerated	188.46 "
Same in Massachusetts	155.25 "
Aggregate length of track, computed as single track	640.74 "
Same in Massachusetts	510.60 "
Total length of steel rails in tracks, not including steel-top rails	427.74 "

[Weights per yard, 63 pounds.]

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Pittsfield & North Adams Railroad, length	18.65 miles.
Ware River Railroad, length	49.20 "
North Brookfield Railroad, length	4 "
Spencer Railroad, length	2.18 "
Total length of above roads	74.03 "
Total length of above roads in Massachusetts	74.03 "
Total miles of road operated by this company	323.66 "
Total miles of road operated by this company in Massachusetts, ...	267.03 "
Number of stations in Massachusetts on all roads operated by this company	107
Number of telegraph offices in same	74
Number of stations on all roads owned by this company	89
Same in Massachusetts	73

EQUIPMENT.

Number of locomotives	243
Number of passenger cars	174
Number of baggage, mail and express cars	55
Number of parlor or sleeping cars	10
Number of freight cars (basis of eight wheels)	4,907
Number of other cars	528

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .	—	—	—	7	—	7	—	7
Employés .	—	4	9	27	9	31	12	38
Others . . .	—	—	19	9	19	9	24	10

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 2, 1878. — Oscar Holmes, employé, finger jammed shackling cars at East Boston.

October 8. — John Robertson, passenger, fell from train at Allston. Intoxicated.

October 11. — M. F. Dayton, employé, hit on head while coupling cars in Boston.

October 11. — Peter Quinn, trying to get on a moving freight train in Pittsfield, fell, was run over and killed.

October 14. — Thomas Donovan, employé, getting on engine at Warren, fell, one foot crushed.

October 15. — John McCabe, jumped from freight train near Pittsfield, hip and arm injured.

October 19. — S. A. Huntley, employé, fell from top of car near Washington, run over and killed.

October 24. — Mrs. Orville Crouch, was struck by express train at Warren and killed.

October 28. — A. J. Fayes, slipped on track in front of train, laid down, was run over and killed.

November 1. — Mr. McCarty, trying to get upon a freight train at Pittsfield, fell, was run over and killed. Intoxicated.

November 1. — Mrs. E. Perry, crossing track at Metcalf.

November 6. — Patrick Farrell, employé, standing in doorway of car in East Boston elevator, was caught between car and wall, hip injured.

November 7. — Philip Daley, employé, fell from freight car near Palmer, slightly injured.

November 12. — Patrick Wilson, employé, thrown from hand-car, badly injured.

November 18. — Charles Brainard, employé, fell from top of car at South Framingham, leg broken.

November 19. — Bridget Fannon, jumped from passenger train while moving at Westborough, slightly injured.

November 19. — William Moore, walking on track at South Framingham, run over and killed.

November 19. — George Fortune, employé, finger jammed coupling cars at West Springfield.

November 28. — S. B. Williston, employé, two fingers jammed coupling cars at Hinsdale.

November 28. — John Dunn, employé, shoulder sprained getting from car to engine at West Springfield.

December 3. — Daniel Kelley, walking on track at South Framingham, struck by engine; died December 7.

December 25. — Thomas Connors, employé, fell from car near Shakers, slightly injured.

December 28. — M. Rearden, employé, face cut by rag-picker falling on him while loading freight at West Warren.

January 7, 1879. — Severance Manly, employé, thrown from car by brake-chain breaking, slightly injured.

January 8. — E. F. Wells, employé, hand crushed while shackling cars at Saxonville.

January 20. — J. Conley, employé, finger crushed coupling cars at East Cambridge.

January 30. — F. Pressey, employé, jumped from switch engine at Worcester; run over, lost leg and arm.

February 3. — Unknown man crossing track at Somerville, struck by engine and killed.

February 3. — Charles Fiske, walking on track in Newton, threw himself in front of train, leg broken.

February 12. — S. W. Thompson, employé, slightly injured coupling cars at West Springfield.

February 14. — E. J. Goff, employé, side injured coupling cars at West Springfield.

February 14. — G. Hubbard, employé, struck by freight car at West Springfield, slightly injured.

February 19. — O. Walcott, employé, struck by bridge in Boston, slightly injured.

February 19. — H. King, employé, arm crushed coupling cars in Boston.

February 25. — W. C. Freshett, employé, hand crushed coupling cars in Worcester.

March 8. — W. J. Tuttle, employé, getting on moving freight train at Brighton, fell from side ladder of car, badly injured.

March 11. — E. Leary, attempting to get on a moving freight train at Cambridgeport, leg broken.

March 12. — E. Putnam, boy, fell from freight train near Parker street, Boston, and killed.

March 16. — Charles Parker, employé, fell from freight cars at Natick.

April 1. — John Stapleton, employé, fell from engine at Faneuil, back injured.

April 2. — Charles E. Parker, passenger, jumped from train at Chapel Station, slightly injured.

April 5. — John Holland, charge of stock, on top of car, struck by bridge at Chester; died soon after.

April 8. — George Mahoney, lying on track near Natick, struck by engine and killed.

April 27. — H. E. Underwood, employé, fell from top of car at Millbury Junction, was killed.

May 5. — David Corrigan, employé, fell from top of car at Russell, leg injured.

May 7. — Unknown man, stepped in front of engine near Boston, struck by engine; died soon after.

May 8. — George Magill, employé, fell from freight car near Springfield, was run over and killed.

May 12. — Francis Brown, crossing track in East Boston, struck by engine, died in a few hours.

May 14. — V. Fogarty, struck by freight train at Cottage Farm, leg crushed.

May 22. — Moulton, an engineer, and Broderick, a fireman, slightly injured by the explosion of locomotive in West Springfield yard.

May 31. — John Haley, boy, fell off car at Hinsdale, foot crushed.

July 2. — W. Williams, walking on track near West Springfield, struck by freight train, badly injured.

July 4. — M. Conway, fell from passenger train near Worcester, slightly injured.

July 8. — Charles Whitney, employé, fell from top of freight car, back injured.

July 11. — John Foley, boy, walking on track near Cambridge, run over by freight train, died next day.

July 23. — Joseph Vaughn, employé, fell under cars while coupling at Hinsdale, was killed.

July 26. — G. A. Merrill, employé, fell from top of car near Wilbraham, badly injured.

July 26. — Mary King, sitting on track, struck by engine and killed.

July 27. — T. Coughlin, employé, fell from top of car near Russell, was killed.

August 4. — William Dunn, employé, fell from top of car near Pittsfield, leg broken.

August 9. — J. Smith, employé, fell from top of car at Brimfield, hip injured.

August 13. — Robert Arnold, jumped from train near Newton, slightly injured. Intoxicated.

August 17. — T. McShee, employé, struck by bridge near Grafton and killed.

August 17. — George Bailey, employé, fell from train at South Framingham and killed.

August 22. — Unknown man walking on track near Becket, struck by engine and killed.

August 26. — Mrs. Fountain, struck by freight train near Warren and killed.

August 27. — Mr. Adams, walking on track near Adams, struck by train and killed.

August 29. — Frank Adams, boy, getting on a moving train near Worcester, both legs crushed.

August 31. — William Marshall, employé, coupling cars at Cottage Farm, was crushed; died same day.

September 2. — Daniel Murphy, boy, standing on Harvard-street crossing, struck by train and injured.

September 21. — Hannah Farney, girl, run over and killed at a right-of-way crossing at East Boston.

September 24. — P. Edminston, struck by train at West Springfield and killed.

September 25. — Nina Bartlett, girl, crossing in front of train in Westborough, struck by engine, three fingers crushed.

September 25. — John Frazier, jumped from express train east of Springfield, head badly cut.

September 29. — John Noonan, employé, two fingers crushed coupling cars at East Boston.

NAME AND RESIDENCE OF OFFICERS.

D. Waldo Lincoln, *President*, Worcester, Mass. William Bliss, *General Manager*, Springfield, Mass. Charles O. Russell, *Superintendent*, Springfield, Mass. H. J. Hayden, *General Freight Agent*, Boston, Mass. J. M. Briggs, *General Ticket Agent*, Springfield, Mass. E. Gallup, *General Passenger Agent*, Boston, Mass. Charles E. Stevens, *Treasurer*, Boston, Mass. James A. Rumrill, *Clerk of Corporation*, Springfield, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

D. Waldo Lincoln, Worcester, Mass. Chester W. Chapin, Springfield, Mass. Ignatius Sargent, Brookline, Mass. Moses Kimball, Boston, Mass. John Cummings, Woburn, Mass. George O. Crocker, New Bedford, Mass. E. B. Gillett, Westfield, Mass. Henry Colt, Pittsfield, Mass. Francis B. Hayes, Boston, Mass. Joseph H. Chadwick, Boston, Mass. Charles L. Wood, New Bedford, Mass. D. N. Skillings, Winchester, Mass. Jarvis N. Dunham, Pittsfield, Mass.

CORPORATE NAME OF COMPANY, AND THE PLACE OF PRINCIPAL BUSINESS OFFICE.

BOSTON & ALBANY RAILROAD COMPANY,
SPRINGFIELD, MASS., or BOSTON, MASS.

D. WALDO LINCOLN,
HENRY COLT,
J. H. CHADWICK,
J. N. DUNHAM,
D. N. SKILLINGS,
EDW. B. GILLETT,
GEO. O. CROCKER,
CHARLES L. WOOD,
FRANCIS B. HAYES,
JOHN CUMMINGS,
MOSES KIMBALL,

Directors.

C. E. STEVENS,

Treasurer.

C. O. RUSSELL,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. October 30, 1879. Then personally appeared D. Waldo Lincoln, Henry Colt, J. H. Chadwick, J. N. Dunham, D. N. Skillings, Edward B. Gillett, George O. Crocker, Charles L. Wood, Francis B. Hayes, John Cummings, Moses Kimball, C. E. Stevens and C. O. Russell, and severally made oath to the truth of the foregoing statement by them subscribed.

J. A. RUMRILL,

Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	37 tons.
Average weight of locomotives in working order . . .	30 "
Maximum weight of tenders full of fuel and water . . .	26 "
Average weight of tenders full of fuel and water . . .	18 "
Maximum weight of passenger cars . . .	30 "
Average weight of passenger cars . . .	18 "
Average weight of mail and baggage cars . . .	16 "
Average weight of 8-wheel box freight cars . . .	9 "
Average weight of 8-wheel platform cars . . .	6 "
Average weight of 8-wheel coal cars . . .	7 "

Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	39 feet 3 in.
Total length of heaviest engine and tender over all . . .	46 " 3 "
Number of locomotives equipped with train-brake . . .	59
[Kind of brake: Westinghouse and Vacuum.]	
Number of cars equipped with train-brake . . .	217
[Kind of brake: Westinghouse and Vacuum.]	
Number of passenger cars with Miller platform and buffer .	227
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities:—	
From Natick to Saxonville, number of miles . . .	3.70
Are charges for the transportation of company's supplies included in the earnings as reported for your road? Yes.	
If so, state at what rates; the amount credited to earnings; and the number of tons carried:—	
One-half fourth class	\$92,956 27
Number of tons	103,541

BRIDGES BUILT WITHIN THE YEAR IN MASSACHUSETTS.

LOCATION.	KIND.	MATERIAL.	LENGTH.	WHEN BUILT.
East Huntington . .	Diagonal Truss.	Iron.	90 feet 2 inches.	Feb., 1879.
East Richmond . .	Rolled Beam.	"	14 "	July, "
Richmond Furnace .	" "	"	12 "	" "

Number of spans of bridges, of 25 feet and upwards . . .	81
Number of iron bridges, aggregate length, feet 5,688.63 . .	72
Number of wooden bridges, aggregate length, feet 4,900.18 .	27
Number of crossings of highways at grade	184
Number of crossings of highways over railroad	63
Number of crossings of highways under railroad	38
Number of highway bridges 18 feet above track	12
Number of highway bridges less than 18 feet above track . .	47
Number of crossings at which gates or flagmen are maintained,	38
Number of crossings at which electric signals are maintained .	1
Number of crossings at which there are neither electric signals, gates nor flagmen	146
Number of railroad crossings at grade:	13
Boston & Providence Railroad.	
Mansfield & Framingham Railroad.	
Norwich & Worcester Railroad (cross twice).	
Providence & Worcester Railroad (cross twice).	
Worcester Viaduct Company.	
New London Northern Railroad.	
New Haven & Northampton Railroad.	
Eastern Railroad.	
Mystic Branch of the Lowell Railroad.	
Boston & Maine Railroad.	
Fitchburg Railroad.	
Number of railroad crossings under other railroads: . . .	2
Boston & Lowell Railroad.	
Springfield & North-Eastern Railroad.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . .	2.31 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	2.25 "
Average rate of fare per mile for season-ticket passengers .	.97 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers .	2.14 "

Average rate of local freight per ton per mile on roads operated by this company	1.73 cents.
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	.83 "
RELATING TO PASSENGERS.	
Passengers to Boston (including season)	1,977,464
Passengers from Boston (including season)	1,537,323
Season-ticket passengers to and from Boston	1,239,268
CAPITAL STOCK.	
Capital stock authorized by charter \$27,325,000 00	
Capital stock authorized by votes of company 20,000,000 00	
Capital stock issued (number of shares, 200,000) ; amount paid in, ...	\$20,000,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	20,000,000 00
Total number of stockholders 5,776	
Number of stockholders in Massachusetts 5,004	
Amount of stock held in Massachusetts \$17,778,900 00	
DEBT.	
Funded debt, as follows:—	
Bonds due February 1, 1892, rate of interest 7 per cent	\$5,000,000 00
Interest paid on same during year \$350,000 00	
Bonds due July 1, 1895, rate of interest 6 per cent	2,000,000 00
Interest paid on same during year 120,000 00	
TOTAL AMOUNT OF FUNDED DEBT	7,000,000 00

REPORT

OF THE

BOSTON, BARRE & GARDNER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$162,647 65
Total expense (including taxes)	123,806 41
Net income	38,841 24
Rentals (specifying amount to each company):	7,200 00
Monadnock Railroad Company	\$7,200 00
Interest accrued during the year:	38,365 03
On funded debt	31,395 00
On other debt	6,970 03
Balance for the year (deficit):	6,723 79
Deficit at commencement of year	72,505 73
Deficit September 30, 1879	79,229 52
ANALYSIS OF EARNINGS.	
From local passengers	\$30,190 80
through passengers (to and from other roads)	25,091 20
express and extra baggage	4,153 90
mails	3,850 79
<i>Total earnings from passenger department</i>	<i>63,286 69</i>
From local freight	34,029 24
through freight (to and from other roads)	63,357 24
other sources, freight department	285 23
<i>Total earnings from freight department</i>	<i>97,671 71</i>
TOTAL TRANSPORTATION EARNINGS	160,958 40
Rents for use of road, lands and buildings	1,689 25
TOTAL INCOME FROM ALL SOURCES	\$162,647 65
ANALYSIS OF EXPENSES.	
Taxes	\$1,037 50
General salaries, office expenses and miscellaneous	24,125 64
Insurance	175 60
Telegraph expenses	1,354 19
Repairs of road	17,644 16
Iron rails	4,883 22
[Number of tons laid, 211.22.]	
New ties	2,852 09
Repairs of bridges	128 67
Repairs of buildings	1,760 31
Repairs of fences, road crossings and signs	115 26
Repairs of locomotives	12,396 08
Fuel, locomotive power	16,590 28
Water and water stations	413 32
Oil and waste	1,161 96
Repairs of passenger, mail and baggage cars	2,812 66
Salaries, wages and incidentals of passenger trains	9,219 90

Salaries, wages and incidentals of passenger stations	\$4,559 01
Passenger-car mileage (debit balances)	643 92
Repairs of freight cars	3,457 72
Salaries, wages and incidentals of freight trains	5,706 92
Salaries, wages and incidentals of freight stations	9,118 33
Freight-car mileage (debit balances)	3,649 67
TOTAL EXPENSES	\$123,806 41
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Grading and masonry	\$524 15
Superstructure, including rails	5,137 54
Land, land damages and fences	1,129 80
Passenger and freight stations, wood-sheds and water stations .	4 30
Engine-houses, car-sheds and turn-tables	168 68
Machine-shops	132 32
Engineering, agencies, salaries and other expenses during construction	75 00
ADDITION TO PROPERTY ACCOUNT FOR THE YEAR	\$7,171 79
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$1,381,575 40
Equipment account	155,962 59
Other permanent investments	1,461 67
Cash items (<i>as follows</i>):	44,377 01
Cash	\$35,042 28
Bills receivable	5 19
Due from agents and companies	9,329 54
Other assets (<i>as follows</i>):	23,415 07
Materials and supplies	22,452 37
Debit balances	962 70
Profit & Loss balance	79,229 52
TOTAL ASSETS	\$1,686,021 26
LIABILITIES.	
Capital stock	\$871,001 73
Funded debt	554,300 00
Unfunded debt (<i>as follows</i>):	260,719 53
Interest unpaid	\$12,134 50
Notes payable	174,759 39
Vouchers and accounts	73,825 64
TOTAL LIABILITIES	\$1,686,021 26
<i>Present or Contingent Liabilities not included in the Balance Sheet.</i>	
Land damage	\$300 00
Overdue rent of Monadnock Railroad	6,250 00
Overdue interest	3,300 00
TOTAL (not included in Balance Sheet)	\$9,850 00
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	87,141
Freight-train mileage	48,573
Switching-train mileage	4,500
TOTAL TRAIN MILEAGE	140,214
Number of season-ticket passengers	3,102
Number of local passengers (including season)	66,415
Number of through passengers	31,218
TOTAL NUMBER OF PASSENGERS	97,633

Local passenger mileage (local passengers carried one mile)	1,028,231
Through passenger mileage (through passengers carried one mile), ...	663,792
Number of tons of local freight carried	29,671
Number of tons through freight carried	111,960
TOTAL NUMBER TONS FREIGHT CARRIED	141,631
Local freight mileage (tons local freight carried one mile)	573,550
Through freight mileage (tons through freight carried one mile), ...	2,751,015
Average weight of passenger trains (exclusive of passengers)	94 tons.
Average number of cars in passenger trains	2½
Average weight of freight trains (exclusive of freight)	210 tons.
Average number of cars in freight train	221½
Average number of persons employed	125
Miles run by freight cars (north)	23,821
Miles run by freight cars (south)	24,752

DESCRIPTION OF ROAD.

Length of main line of road from Worcester to Winchendon	36.53 miles.
Length of main line of road in Massachusetts	36.53 "
Total length of road belonging to this company	36.53 "
Aggregate length of sidings and other tracks not above enumerated	8.34 "
Same in Massachusetts	8.34 "
Aggregate length of track, computed as single track	44.87 "
Same in Massachusetts	44.87 "
Total length of steel rails in tracks, not including steel-top rails, [Weight per yard, 56 pounds.]	.68 "

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Monadnock, length	16 miles.
Total length of above road in Massachusetts	2 "
Total length of above road in New Hampshire	14 "
Total miles of road operated by this company	52.53 "
Total miles of road operated by this company in Massachusetts, Number of stations in Massachusetts on all roads operated by this company	38.53 "
Number of telegraph offices in same	17
Number of stations on all roads owned by this company	9
Same in Massachusetts	17

EQUIPMENT.

Number of locomotives	7
Number of passenger cars	7
Number of baggage, mail and express cars	4
Number of freight cars (basis of 8 wheels)	76
Number of other cars	21

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	-	-	-	-	-	-	-	-
Employés	-	-	-	2	-	2	-	-
Others	-	-	-	1	-	1	-	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

February 8. — N. E. Stone, telegraph operator and employé, while riding on platform of empty passenger car which collided with an engine and derrick car, received injuries that proved fatal.

February 8. — S. W. Manning, conductor, was slightly injured by same collision.

February 8. — E. W. Vaill, who was riding on the engine, was injured by the wood falling on him from the tender.

NAME AND RESIDENCE OF OFFICERS.

George S. Barton, *President*, Worcester, Mass. Charles Heywood, *Vice-President*, Gardner, Mass. H. M. Witter, *Superintendent*, Worcester, Mass. H. H. Marshall, *General Freight Agent*, Worcester, Mass. W. M. Anthony, *General Passenger Agent*, Worcester, Mass. William E. Starr, *Treasurer*, Worcester, Mass. William E. Starr, *Clerk of Corporation*, Worcester, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Levi Heywood, Gardner, Mass. Calvin Foster, Worcester, Mass. Charles Heywood, Gardner, Mass. George S. Barton, Worcester, Mass. Charles B. Pratt, Worcester, Mass. Nelson D. White, Winchendon, Mass. W. W. Rice, Worcester, Mass. Isaac N. Ross, Holden, Mass. Stephen Salisbury, Jr., Worcester, Mass. S. R. Heywood, Worcester, Mass. M. V. B. Jefferson, Worcester, Mass.

PROPER ADDRESS OF THE COMPANY.

BOSTON, BARRE & GARDNER RAILROAD CORPORATION,
WORCESTER, MASS.

GEO. S. BARTON,
CHAS. HEYWOOD,
LEVI HEYWOOD,
CALVIN FOSTER,
NELSON D. WHITE,
I. N. ROSS,
M. V. B. JEFFERSON,
Directors.
WM. E. STARR,
Treasurer.
H. M. WITTER,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, ss. November 15, 1879. Then personally appeared George S. Barton, Charles Heywood, Levi Heywood, Calvin Foster, Nelson D. White, I. N. Ross, M. V. B. Jefferson, William E. Starr and H. M. Witter, and severally made oath to the truth of the foregoing statement by them subscribed.

W. W. RICE,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order	32 tons.
Average weight of locomotives in working order	26½ "
Maximum weight of tenders full of fuel and water	20 "
Average weight of tenders full of fuel and water	16½ "
Maximum weight of passenger cars	18½ "
Average weight of passenger cars	17 "
Average weight of mail and baggage cars	17 "
Average weight of 8-wheel box freight cars	9 "
Average weight of 8-wheel platform cars	7 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender	40 ft. 10 in.
Total length of heaviest engine and tender over all	50 ft. 10 in.
Number of locomotives equipped with train-brake: none.	
Number of cars equipped with train-brake: none.	
Number of passenger cars with Miller platform and buffer: none.	
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities (specifying location of same):—	
From Winchendon to Peterborough, N.H.	16
Number of spans of bridges, of 25 feet and upwards	5
Number of iron bridges (aggregate length, 260 feet)	9
Number of wooden bridges (aggregate length, 41 feet)	1
Number of crossings of highways at grade	56
Number of crossings of highways over railroad	3
Number of crossings of highways under railroad	1
Number of highway bridges 18 feet above track	3
Number of crossings at which gates or flagmen are maintained, ...	10
Number of crossings at which there are neither electric signals, gates nor flagmen	46
Number of railroad crossings at grade (specifying each)	3
Worcester & Nashua, at Worcester.	
Vermont & Massachusetts, at Gardner.	
Cheshire, at Winchendon.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	2.98 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	3.78 "
Average rate of fare per mile for season-ticket passengers	1.69 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	3.26 "
Average rate of local freight per ton per mile on roads operated by this company	9.25 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	2.3 "

CAPITAL STOCK.

Capital stock authorized by charter	\$1,200,000 00
Capital stock authorized by votes of company	900,000 00
Capital stock issued (number of shares, 8,637); amount paid in, ...	\$863,700 00
Capital stock paid in on shares not issued (number shares, 212), ...	7,301 73
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.	\$871,001 73
Total number of stockholders	222
Number of stockholders in Massachusetts	217
Amount of stock held in Massachusetts	\$868,464 00

DEBT.

Funded debt, as follows:—	
First mortgage bonds, due April 1, 1893, rate of interest *	\$368,000 00
Interest paid on same during year	\$12,897 50
Second mortgage bonds, due July 1, 1895, rate of interest *	186,300 00
Interest paid on same during year	\$6,520 50
TOTAL AMOUNT OF FUNDED DEBT	\$554,300 00

* These bonds of both issues were originally 7 per cent bonds; but an attempt has been made during the year to reduce the interest to 5 per cent on first mortgage, and 3 per cent on second mortgage bonds. This has been agreed to by holders of \$233,700 of first mortgage bonds, and \$157,000 of second mortgage bonds; and this report has been made upon the assumption that all the holders will come into the arrangement.

REPORT

OF THE

BOSTON, CLINTON, FITCHBURG & NEW BEDFORD RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[The railroad of this corporation passed under the control of the Old Colony Railroad Company by lease dated February 1. The pages marked [A] show the operation and results of the four months prior ; and those marked [B], the eight months subsequent to that date].

[A]		
GENERAL EXHIBIT FOR FOUR MONTHS ENDING JANUARY 31.		
Total income four months		\$307,537 34
Total expense (including taxes) four months		257,836 76
Net income for four months		\$49,700 58
Rentals (specifying amount to each company):		12,866 67
Framingham & Lowell Railroad	\$11,666 67	
Boston & Lowell Railroad	1,200 00	
Interest accrued during four months:		75,516 03
On funded debt	\$56,820 68	
On other debt	18,695 35	
Balance for the four months (deficit)		\$38,682 12
Balance at commencement of year (deficit)	95,678 41	
Transfer of accounts to Old Colony Railroad under lease	159,596 78	
Losses and bad debts	1,795 70	
	\$256,870 89	
Deduct: for sundry credit items	369 03	
Balance at commencement of year as so changed		256,501 86
Balance January 31, 1879 (deficit)		295,183 98
ANALYSIS OF EARNINGS — FOUR MONTHS.		
From local passengers		\$26,964 04
through passengers (to and from other roads)		75,216 34
express and extra baggage		6,088 20
mails		2,994 47
other sources, passenger department		2,775 00
Total earnings from passenger department		114,038 05

[A]	
From local freight.	\$50,649 62
through freight (to and from other roads)	134,277 65
other sources, freight department	925 00
<i>Total earnings from freight department</i>	185,852 27
TOTAL TRANSPORTATION EARNINGS	299,890 32
Rents for use of road	1,200 00
Income from all other sources (specifying same):	6,447 02
Sinking fund accretions	\$3,247 02
Rents of lands and houses	3,200 00

TOTAL INCOME FROM ALL SOURCES—FOUR MONTHS.	\$307,537 34
---	---------------------

ANALYSIS OF EXPENSES—FOUR MONTHS.

Taxes	\$2,600 00
General salaries, office expenses and miscellaneous	13,465 06
Insurance	1,130 00
Telegraph expenses	2,155 21
Repairs of road	25,284 66
Iron rails, less old iron taken up	3,292 02
[Number of tons laid, 767.]	
Steel rails, less old iron taken up	21,997 07
[Number of tons, 747.]	
New ties	3,889 96
Repairs of bridges	1,381 24
Repairs of buildings	16,858 63
Repairs of machine-shops and machinery	845 17
Repairs of fences, road crossings and signs	1,114 26
Removing ice and snow	837 36
Repairs of locomotives	9,452 72
Fuel, locomotive power	30,609 75
Water and water stations	2,527 07
Fuel for cars and stations	3,355 00
Oil and waste	2,213 48
Switchmen, watchmen, flag and signal men	10,897 55
Repairs of passenger, mail and baggage cars	6,937 36
Damages and gratuities to passengers	72 18
Salaries, wages and incidentals of passenger trains	18,160 04
Salaries, wages and incidentals of passenger stations	10,338 11
Repairs of freight cars	10,234 10
Damages and gratuities freight	250 02
Salaries, wages and incidentals of freight trains	27,550 52
Salaries, wages and incidentals of freight stations	23,414 13
Freight-car mileage (debit balances)	6,974 09

TOTAL EXPENSES.	\$257,836 76
------------------------	---------------------

[B]

GENERAL EXHIBIT FOR EIGHT MONTHS ENDING SEPTEMBER 30, 1879.

Total income	\$239,798 24
Total expense (including taxes)	7,922 28
Net income	231,875 96
Rentals (specifying amount to each company):	14,857 02
Framingham & Lowell Railroad	\$14,857 02
Interest accrued during eight months:	148,513 53
On funded debt	112,753 79
On other debt	35,759 75
Balance for eight months (surplus)	\$68,505 40

ANALYSIS OF EARNINGS.

Rents for use of road, 10 $\frac{1}{2}$ per cent on gross earnings Old Colony Railroad	\$235,121 99
--	--------------

[B]	
Income from all other sources (specifying same):	\$4,676 25
Sinking fund accretions	\$3,781 45
Sundry items of interest	894 80
TOTAL INCOME FROM ALL SOURCES	\$239,798 24
ANALYSIS OF EXPENSES.	
Taxes, share for eight months	\$4,260 00
General salaries, office expenses and miscellaneous, eight months	3,662 28
TOTAL EXPENSES	\$7,922 28
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Land	\$6,518 24
Other expenditures charged to property account (specifying same):—	
Old Colony Railroad transfer of accounts under the lease	294,245 91
Shrinkage in value of property inherited from Boston, Clinton & Fitchburg Railroad at the date of consolidation in 1876, as follows:	57,797 47
Oak Bluffs Land & Wharf Company	\$18,000 00
Sundry debts and accounts called good then	33,972 47
Boston & Albany, settlement of old claims	5,825 00
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNT, Land sold	\$358,561 62 5,000 00
NET ADDITION TO PROPERTY ACCOUNT FOR THE YEAR	\$353,561 62
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$5,369,603 27
Equipment account	974,440 00
Stock of Oak Bluffs Land & Wharf Company	800 00
Bonds of Nashua, Acton, & Boston Railroad Co.	\$351 05
New Bedford Railroad Company	528,000 00
H. M. Brownell	20,370 00
Mansfield & Framingham Railroad	2,144 41
Cash items as follows:	550,865 46 90,726 95
Cash	\$5,890 41
Bills receivable	4,070 00
Due from agents and companies	80,766 54
Other assets as follows:—	
Sinking fund	77,546 45
Profit & Loss balance (deficit) up to February 1, 1879.	295,183 98
TOTAL ASSETS	\$7,359,166 11
LIABILITIES.	
Capital stock (common)	\$1,297,600 00
Capital stock (preferred)	1,750,100 00
Funded debt, including \$528,000 bonds unsold (see Assets)	3,169,100 00
Unfunded debt, as follows:—	
Interest unpaid including all accrued on bonds, ...	\$33,749 52
Dividends unpaid	882 00

[B]		
Notes payable, secured in part by the New Bedford bonds unsold	\$978,600 00	
Vouchers and accounts	16,804 19	
		\$1,030,035 71
Stock of Boston, Clinton & Fitchburg Railroad, Agricultural Branch Railroad, and Middleborough & Taunton Railroad, convertible and not exchanged		43,825 00
Profit & Loss balance (surplus) for eight months		68,505 40
TOTAL LIABILITIES		\$7,359,166 11
[A] MILEAGE TRAFFIC, ETC.—FOUR MONTHS.		
Passenger-train mileage*		115,480 miles
Freight-train mileage†		102,002 "
Switching-train mileage‡		41,793 "
Other train mileage		3,377 "
TOTAL TRAIN MILEAGE		262,652 "
Number of season-ticket passengers		68,926
Number of local passengers (including season)		138,635
Number of through passengers		126,670
TOTAL NUMBER OF PASSENGERS		265,305
Local passenger mileage (local passengers carried one mile)		427,400
Through passenger mileage (through passengers carried one mile)		727,400
		2,030,332
Number of tons local freight carried		41,041 tons.
Number of tons through freight carried		142,557 "
TOTAL NUMBER OF TONS FREIGHT CARRIED		183,598 "
Local freight mileage (tons local freight carried one mile)		1,837,436 "
Through freight mileage (tons through freight carried one mile)		5,606,809 "
Average weight of passenger trains (exclusive of passengers)		95 "
Average number of cars in passenger trains		3
Average weight of freight trains (exclusive of freight)		205 tons.
Average number of cars in freight train		20 cars.
Average number of persons employed		702
DESCRIPTION OF ROAD.		
Length of main line of road from Fitchburg to New Bedford		91.021 miles.
Length of main line of road in Massachusetts		91.021 "
Length of double track on main line		4.008 "
Same in Massachusetts		4.008 "
Branches owned by company (name and description of each, single or double track):—		
Pratt's Junction to Sterling Junction		5.671 "
Lancaster		1.629 "
Marlborough		1.467 "
Framingham Prison		.815 "
Attleborough		8.600 "
Weir		.606 "
Acushnet		.353 "
Fairhaven		15.170 "
Total length of branches owned by company		34.311 "
Total length of branches owned by company in Massachusetts		34.311 "
Total length of road belonging to this company		125.332 "
Aggregate length of sidings and other tracks not above enumerated		32.684 "
Same in Massachusetts		32.684 "
Aggregate length of track, computed as single track		162.024 "
Same in Massachusetts		162.024 "
Total length of steel rails in tracks, not including steel-top rails, ...		29,036 "
Number of stations on all roads owned by this company		47
Same in Massachusetts		47

* 8,736 miles on Fall River Railroad.

† 3,203 miles on Fall River Railroad.

‡ 126 miles on Fall River Railroad.

[A]

LIST OF ACCIDENTS — FOUR MONTHS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .	-	-	-	-	-	-	-	-
Employés .	-	-	-	-	-	-	-	-
Others. . .	-	-	-	1	-	-	-	1

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 31, 1878. — As passenger train No. 94 was approaching Attleborough, it struck a team on the crossing, throwing out and seriously injuring Arnold H. Sears of North Attleborough.

NAME AND RESIDENCE OF OFFICERS.

N. Thayer, Jr., *President*, Boston, Mass. William J. Rotch, *Vice-President*, New Bedford, Mass. William J. Rotch, *Treasurer*, New Bedford, Mass. George E. Towne, *Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

N. Thayer, Jr., Boston, Mass. Nathaniel Thayer, Boston, Mass. William B. Wood, Boston, Mass. Lyman Nichols, Boston, Mass. George A. Torrey, Boston, Mass. William J. Rotch, New Bedford, Mass. William W. Crapo, New Bedford, Mass. John E. Sanford, New Bedford, Mass. Charles T. Crocker, New Bedford, Mass.

PROPER ADDRESS OF THE COMPANY.

BOSTON, CLINTON, FITCHBURG & NEW BEDFORD RAILROAD
COMPANY,

22 TREMONT BANK BUILDING, BOSTON, MASS.

WM. W. CRAPO,
WM. J. ROTCH,
LYMAN NICHOLS,
WM. B. WOOD,
Directors.
WM. J. ROTCH,
Treasurer.
S. A. WEBBER,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 19, 1879. Then personally appeared William W. Crapo, W. J. Rotch, Lyman Nichols, William B. Wood and S. A. Webber, and severally made oath to the truth, to the best of their knowledge and belief, of the foregoing statement by them subscribed.

GEO. E. TOWNE,
Justice of the Peace.

GENERAL INFORMATION.	
Number of spans of bridges, of 25 feet and upwards	7
Number of wooden bridges	45
Number of crossings of highways at grade	170
Number of crossings of highways over railroad	4
Number of crossings of highways under railroad	3
Number of highway bridges 18 feet above track	2
Number of highway bridges less than 18 feet above track	2
Number of crossings at which gates or flagmen are maintained, ...	38
Number of crossings at which there are neither electric signals, ...	
gates nor flagmen	132
Number of railroad crossings at grade (specifying each):	8
Fitchburg.	
Worcester & Nashua.	
New York & New England, (2).	
Boston & Providence.	
Old Colony, (2).	
Boston & Albany.	
CAPITAL STOCK.	
Capital stock authorized by charter	\$6,282,300
Capital stock authorized by votes of company	5,351,100
Capital stock issued (number of shares, 30,477); * amount paid in	\$3,047,700 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.	\$3,047,700 00
Total number of stockholders	487
Number of stockholders in Massachusetts	479
Amount of stock held in Massachusetts	\$3,039 100
DEBT.	
Funded debt, as follows:—	
Agricultural Branch 6s, mortgage due July, 1884	\$400,000 00
Interest paid during year	\$24,000
Fitchburg & Worcester 7s, mortgage due Jan., 1889	247,600 00
Interest paid during year	17,332
Boston, Clinton & Fitchburg 7s, mort. due Jan., 1890	252,000 00
Interest paid during year	17,640
Mansfield & Framingham 7s, mortgage due July, 1889	300,000 00
Interest paid during year	21,000
New Bedford & Taunton 6s, mortgage due July, 1881	171,500 00
Interest paid during year	10,290
New Bedford 7s, mortgage due July, 1894	400,000 00
Interest paid during year	28,000
New Bedford 7s, mortgage (not sold) due June, 1896	528,000 00
No interest paid.	
Boston, Clinton & Fitchburg 6s, due April, 1881	100,000 00
Interest paid during year	6,000
Boston, Clinton & Fitchburg 6s, due January, 1882	250,000 00
Interest paid during year	15,000
Boston, Clinton & Fitchburg 6s, due October, 1883	250,000 00
Interest paid during year	15,000
Mansfield & Framingham 6s, due February, 1881	120,000 00
Interest paid during year	7,200
Mansfield & Framingham 6s, due February, 1885	100,000 00
Interest paid during year	6,000
Mansfield & Framingham 6s, due November, 1881	50,000 00
Interest paid during year	3,000
TOTAL AMOUNT OF FUNDED DEBT.	\$3,169,100 00

* 12,976 preferred; 17,501 common.

REPORT

OF THE

BOSTON & LOWELL RAILROAD CORPORATION,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.

Total income		\$1,210,872 51
Total expense (including taxes)		806,382 45
Net income		404,490 06
Rentals (specifying amount to each company):		67,598 27
Salem & Lowell Railroad	\$12,220 83	
Lowell & Lawrence Railroad	19,399 70	
Stony Brook Railroad	2,104 50	
Middlesex Central Railroad	14,225 00	
Peterborough Railroad	3,941 28	
Sundry payments for rents	15,706 96	
Interest accrued during year:		173,800 50
On funded debt	\$169,715 00	
On other debt	4,085 50	
Dividends declared (1 per cent)		32,500 00
Balance for the year (surplus)		130,591 29
Balance at commencement of year	\$453,611 51	
Deduct dividend paid from previous earnings	32,500 00	
Balance at commencement of year as so changed		421,111 51
Balance September 30, 1879 (surplus)		551,702 80

ANALYSIS OF EARNINGS.

From local passengers		\$426,009 13
through passengers (to and from other roads)		104,055 71
express and extra baggage		28,282 49
mails		8,564 79
Total earnings from passenger department		566,912 12
From local freight		300,537 19
through freight (to and from other roads)		322,858 61
Total earnings from freight department		623,395 80
TOTAL TRANSPORTATION EARNINGS		1,190,307 92
Income from all other sources (specifying same):		20,564 59
Accumulation of sinking funds	\$8,654 60	
Interest on improvements from Nashua & Lowell Railroad	7,996 99	
Interest on other investments	3,913 00	
TOTAL INCOME FROM ALL SOURCES		1,210,872 51

ANALYSIS OF EXPENSES.

Taxes		\$49,557 45
General salaries, office expenses and miscellaneous		32,603 79
Insurance		2,816 16
Telegraph expenses		3,926 50

Repairs of road	\$72,882 13
Steel rails	31,489 98
[Number of tons laid, 1,020.]	
New ties	13,701 55
[Number laid, 79,051 feet long, 40,580 short.]	
Repairs of bridges	24,694 13
Repairs of buildings	29,812 01
Repairs of machine-shops and machinery	1,921 31
Repairs of fences, road crossings and signs	4,548 02
Removing ice and snow	2,815 56
Repairs of locomotives	35,482 45
New locomotives	5,300 00
Fuel, locomotive power	82,606 65
Water and water stations	9,189 03
Fuel for cars, stations, shops and stationary engines	6,993 92
Oil and waste	10,373 15
Switchmen, watchmen, flag and signal men	51,336 18
Repairs of passenger, mail and baggage cars	21,761 86
New passenger, mail and baggage cars	10,800 00
Damages and gratuities to passengers	4,397 79
Salaries, wages and incidentals of passenger trains	74,189 55
Salaries, wages and incidentals of passenger stations	41,906 33
Repairs of freight cars	17,191 84
New freight cars	9,728 40
Damages and gratuities, freight	553 69
Salaries, wages and incidentals of freight trains	55,089 75
Salaries, wages and incidentals of freight stations	90,308 51
Freight-car mileage (debit balances)	8,404 76

TOTAL EXPENSES \$806,382 45

PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.

Superstructure, excavating ledge at Lowell	\$36,154 88
Land, land damages and fences	6,051 90
Purchase of other roads (specifying same):—	
Lowell & Lawrence Railroad	277,857 96
Salem & Lowell Railroad and Wharf	466,147 04
Mystic Wharf	1,434 79
TOTAL FOR CONSTRUCTION	787,646 57
Locomotives	1,180 07
Passenger, mail and baggage cars	8,921 34
TOTAL FOR EQUIPMENT	10,101 41

TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS, 797,747 98

Property sold and credited property accounts during the year:—

 Merchandise cars 2,642 04

 Leased equipment of Lowell & Lawrence, and Salem & Lawrence Railroads, absorbed in purchase of roads 75,340 00

NET ADDITION TO PROPERTY ACCOUNT FOR THE YEAR, 719,765 94

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$5,781,306 72
Equipment account	441,833 81
Other permanent investments (<i>as follows</i>):	536,773 99
Lands in East Cambridge	121,466 62
Mystic Wharf	415,307 37
Cash items (<i>as follows</i>):	402,140 80
Cash	\$80,801 83
Bills receivable	205,000 00
Due from agents and companies	116,338 97

Other assets (<i>as follows</i>):		\$395,994 23
Materials and supplies	\$111,989 59	
Sinking fund	216,399 14	
Middlesex Central Railroad extension	53,587 92	
Lowell & Lawrence Railroad extension	14,017 58	
TOTAL ASSETS		\$7,558,049 55
LIABILITIES.		
Capital stock		\$3,250,000 00
Funded debt		3,496,400 00
Unfunded debt (<i>as follows</i>):		259,946 75
Coupons unpaid	\$337 25	
Coupons due October 1, 1879.	67,434 50.	
Dividends unpaid	1,175 00	
Notes payable	191,000 00	
Profit & Loss balance (surplus)		551,702 80
TOTAL LIABILITIES		\$7,558,049 55
MILEAGE, TRAFFIC, ETC.		
Passenger-train mileage		567,340
Freight-train mileage		203,116
Switching-train mileage		232,513
Other train mileage		42,172
TOTAL TRAIN MILEAGE		1,045,141
Number of season-ticket passengers *.		1,027,867
Number of local passengers (including season)		2,232,124
Number of through passengers		219,626
TOTAL NUMBER OF PASSENGERS		2,451,750
Local passenger mileage (local passengers carried one mile)		22,067,402
Through passenger mileage (through passengers carried one mile)		5,739,992
Number of tons of local freight carried		344,302
Number of tons through freight carried		475,541
TOTAL NUMBER TONS FREIGHT CARRIED		819,843
Local freight mileage (tons local freight carried one mile)		6,959,869
Through freight mileage (tons through freight carried one mile), ...		11,662,243
Average weight of passenger trains (exclusive of passengers)		302,000 lbs.
Average number of cars in passenger trains		5
Average weight of freight trains (exclusive of freight)		374,000 "
Average number of cars in freight train		35
Average number of persons employed		837
DESCRIPTION OF ROAD.		
Length of main line of road from Boston to Lowell		26.75 miles.
Length of main line of road in Massachusetts		26.75
Length of double track on main line		26.75 "
Same in Massachusetts		26.75 "
Branches owned by company:—		
Mystic (single track) length		2.25 "
Lexington and Arlington		9.25 "
Woburn		2 "
Stoneham		2.50 "
Lawrence		3.21 "
Salem & Lowell		16.80 "
Lowell & Lawrence		12.42 "
Total length of branches owned by company		48.43 "
Total length of branches owned by company in Massachusetts		48.43 "
Total length of road belonging to this company		75.18 "

* Reckoning *twelve passengers* per week for time of each season ticket.

Aggregate length of sidings and other tracks not above enumerated	32.91 miles.
Same in Massachusetts	32.91 "
Aggregate length of track, computed as single track	134.84 "
Same in Massachusetts	134.84 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 60 pounds.]	45.5 "

*Roads and Branches belonging to other Companies, operated by
this Company under Lease or Contract.*

Middlesex Central Railroad, length	11.08 miles.
Total length of above road in Massachusetts	11.08 "
Total miles of road operated by this company	86.26 "
Total miles of road operated by this company in Massachusetts, Number of stations in Massachusetts on all roads operated by this company	86.26 " 55
Number of telegraph offices in same	9
Number of stations on all roads owned by this company . . .	51
Same in Massachusetts	51

EQUIPMENT.

Number of locomotives owned	45
Number of passenger cars owned	68
Number of baggage, mail and express cars owned	22
Number of freight cars (basis of 8 wheels) owned	680

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	—	—	—	—	—	—	—
Employés	—	—	—	5	—	5	—	5
Others	—	—	3	5	3	5	3	5

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

December 20, 1878. — David Hussey, employé, was slightly injured while shifting cars at Mystic Wharf.

December 20, 1878. — H. J. Bangs, employé, while shifting cars at Mystic Wharf, was slightly injured.

December 28, 1878. — Horace George, employé, was severely injured while coupling cars at Mystic Wharf.

April 7, 1879. — John Shain of Tewksbury Almshouse, while walking on the track at Somerville, was severely injured by a passing train.

May 24, 1879. — Cavouretti Binds, employé, was injured by falling from a dump-car at Concord, Mass.

May 27, 1879. — An unknown man, while sitting on the track near Lowell, was struck by a freight train and pushed down the bank; he was under the influence of liquor.

June 7, 1879. — Mrs. Michael Carroll of Charlestown was struck by a passenger train near Fitchburg Railroad bridge and slightly injured. She was drawn upon the track by a goat she was leading.

June 27, 1879. — Joseph Vallier of Winchester, while lying on the track, was struck by a freight train, and received fatal injuries.

July 2, 1879. — A. H. Churchill, brakeman, was slightly injured while coupling cars at Arlington.

August 6, 1879. — Michael Murphy of Cambridge, while sitting on the track near Lake Street, was slightly injured by a passenger train. He was under the influence of liquor.

August 25, 1879. — George White, while crossing the track at Winchester in an express team, was struck by an ice train, receiving fatal injuries.

September 17, 1879. — John Curran of Cambridge was slightly injured near East Cambridge depot by attempting to stand between the tracks while two trains passed.

September 26, 1879. — A young man, supposed to be Lincoln H. Crouther, climbed on the top of a passenger car at West Medford, and was instantly killed by being struck by Brooks Bridge.

NAME AND RESIDENCE OF OFFICERS.

Josiah G. Abbott, *President*, Boston, Mass. Hocum Hosford, *Manager*, Lowell, Mass. William M. Parker, *Superintendent*, Winchester, Mass. Joseph S. Lincoln, *General Freight Agent*, Somerville, Mass. B. F. Kendrick, *General Passenger Agent*, Nashua, N. H. C. E. A. Bartlett, *Treasurer*, Lowell, Mass. C. E. Cram, *Clerk of Corporation*, Winchester, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Josiah G. Abbott, Boston, Mass. William A. Burke, Lowell, Mass. Thomas Talbot, Billerica, Mass. Edwin Morey, Boston, Mass. T. Jefferson Coolidge, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

BOSTON & LOWELL RAILROAD CORPORATION,
BOSTON, MASS.

J. G. ABBOTT,
WILLIAM A. BURKE,
T. JEFFERSON COOLIDGE,
EDWIN MOREY,

Directors.

C. E. A. BARTLETT,

Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. BOSTON, November 11, 1879. Then personally appeared William A. Burke, T. Jefferson Coolidge, Edwin Morey, J. G. Abbott, and severally made oath to the truth of the foregoing statement by them subscribed, according to their best knowledge and belief.

C. E. A. BARTLETT,
Justice of the Peace.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. BOSTON, November 13, 1879. Then personally appeared C. E. A. Bartlett, and made oath to the truth of the foregoing statement by him subscribed, according to his best knowledge and belief.

H. HOSFORD,

Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	71,800 lbs.
Average weight of locomotives in working order . . .	56,000 "
Maximum weight of tenders full of fuel and water . . .	51,000 "
Average weight of tenders full of fuel and water . . .	40,000 "
Maximum weight of passenger cars . . .	39,000 "
Average weight of passenger cars . . .	36,000 "
Average weight of mail and baggage cars . . .	24,000 "
Average weight of 8-wheel box freight cars . . .	16,000 "
Average weight of 4-wheel box freight cars . . .	7,000 "
Average weight of 8-wheel platform cars . . .	14,000 "
Average weight of 4-wheel platform cars . . .	5,000 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	43 feet 6 in.
Total length of heaviest engine and tender over all . . .	52 "
Number of locomotives equipped with train-brake . . .	33
[Kind of break: Smith and Westinghouse.]	
Number of cars equipped with train break . . .	99
[Kind of break: Smith.]	
Number of passenger cars with Miller platform and buffer: (Including 22 baggage and 2 express) . . .	82
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities (specifying location of same):—	
From Tewksbury Junction to Peabody . . .	16.8 miles.
Are charges for the transportation of company's supplies included in the earnings as reported for your road? They are not.	

BRIDGES BUILT WITHIN THE YEAR IN MASSACHUSETTS.

LOCATION.	KIND.	MATERIAL.	LENGTH.
Lowell	Lattice.	Iron.	75 feet.
Lowell	"	"	75 "
Number of spans of bridges, of 25 feet and upwards . . .			12
Number of iron bridges			6
Number of wooden bridges			11
Number of crossings of highways at grade			90
Number of crossings of highways over railroad			55
Number of crossings of highways under railroad			8
Number of highway bridges 18 feet above track			4
Number of highway bridges less than 18 feet above track . . .			51
Number of crossings at which gates or flagmen are maintained, . . .			25
Number of crossings at which there are neither electric signals, gates nor flagmen			65
Number of railroad crossings at grade			5
On the Mystic Branch:—			
Eastern Railroad.			
Boston & Maine Railroad.			
Boston & Albany Railroad.			

On Salem & Lowell Railroad:—

Boston & Maine Railroad.

Danvers Railroad.

Number of railroad crossings over other railroads: . . . 1

Fitchburg Railroad.

Number of railroad crossings under other railroads: . . . 3

Lowell & Andover Railroad, (3).

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . . 2.68 cents.

Average rate of fare per mile *received* from passengers to and from other roads . . . 1.83 “

Average rate of fare per mile for season-ticket passengers . . . 0.97 “

Average rate of fare per mile *received* from *all* passengers . . . 2.04 “

Average rate of local freight per ton per mile on roads operated by this company . . . 4.32 “

Average rate of freight per ton per mile *received* from freight to and from other roads . . . 2.77 “

RELATING TO PASSENGERS.

Passengers to Boston (including season) * . . . 1,145,974

Passengers from Boston (including season) * . . . 1,137,343

Season-ticket passengers to and from Boston * . . . 1,008,210

CAPITAL STOCK.

Capital stock authorized by charter . . . \$3,380,000 00

Capital stock authorized by votes of company . . . 3,380,000 00

Capital stock issued (number of shares, 6,500); amount paid in, \$3,250,000 00

TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. . . 3,250,000 00

Total number of stockholders . . . 1,064

Number of stockholders in Massachusetts . . . 856

Amount of stock held in Massachusetts . . . \$2,859,000 00

DEBT.

Funded debt, as follows:—

Bonds due Oct. 1, 1879, rate of interest 6 per cent . . . \$200,000 00

Interest paid on same during year . . . \$12,000 00

Bonds due April 1, 1892, rate of interest 7 per cent . . . 999,500 00

Interest paid on same during year . . . 69,965 00

Bonds due March 1, 1895, rate of interest 7 per cent . . . 500,000 00

Interest paid on same during year . . . 35,000 00

Bonds due July 1, 1896, rate of interest 6 per cent . . . 750,000 00

Interest paid on same during year . . . 45,000 00

Bonds due July 1, 1899, rate of interest 5 per cent . . . 620,000 00

Interest paid on same during year . . . 7,750 00

BONDED DEBT BOSTON & LOWELL RAILROAD . . . 3,069,500 00

Bonds of the Lowell & Lawrence Railroad

Company† . . . 200,000 00

Bonds of the Salem & Lowell Railroad Com-

pany† . . . 226,900 00

426,900 00

TOTAL AMOUNT OF FUNDED DEBT . . . 3,496,400 00

* Reckoning *twelve passengers* per week for time of each season ticket.

† Assumed through consolidation with this corporation.

REPORT

OF THE

BOSTON & MAINE RAILROAD,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$2,216,265 45
Total expense (including taxes)	1,354,755 48
Net income	861,509 97
Rentals (specifying amount to each company):	87,200 00
Dover & Winnipiseogee Railroad	\$29,000 00
West Amesbury Branch Railroad	5,700 00
Lowell & Andover Railroad	52,500 00
Interest accrued during year	246,447 12
On funded debt	\$245,000 00
On other debt	1,447 12
Dividends declared (six per cent)	420,000 00
Balance for the year (surplus)	107,862 85
Balance at commencement of year	\$1,502,226 29
Add: entries made in Profit & Loss account during the year not included in the above statement.	
Interest	22,555 69
	\$1,524,781 98
Deduct: amounts charged off as of no value	3,651 42
Balance at commencement of year as so changed	1,521,130 56
Balance September 30, 1879 (surplus)	1,628,993 41
ANALYSIS OF EARNINGS.	
From local passengers	\$1,104,179 49
through passengers (to and from other roads)	152,888 08
express and extra baggage	64,119 99
mails	23,209 43
Total earnings from passenger department	1,344,396 99
From local freight	540,082 12
through freight (to and from other roads).	265,377 99
Total earnings from freight department	805,460 11
TOTAL TRANSPORTATION EARNINGS	2,149,857 10
Rents for use of road	23,900 00
Income from all other sources:	42,508 35
Rent of sundry tenements owned by Boston & Maine Railroad	\$36,207 17
Shifting freight at Lawrence	2,206 21
Services as stevedores	4,094 97
TOTAL INCOME FROM ALL SOURCES	2,216,265 45

ANALYSIS OF EXPENSES.	
Taxes	\$96,131 14
General salaries, office expenses and miscellaneous	64,678 28
Insurance	3,292 00
Telegraph expenses	5,225 13
Repairs of road	131,084 11
Iron rails	5,418 00
[Number of tons laid, 387.]	
Steel rails	21,850 51
[Number of tons laid, 1,071.]	
New ties	27,967 94
[Number laid, 97,158.]	
Repairs of bridges	13,149 22
Repairs of buildings	70,781 03
Repairs of machine-shops and machinery	11,825 53
Repairs of fences, road crossings and signs	7,523 96
Removing ice and snow	2,366 30
Repairs of locomotives	65,947 31
New locomotives	20,600 00
Fuel, locomotive power	159,687 50
Water and water stations	9,816 07
Fuel for cars, stations, shops and stationary engines	13,884 97
Oil and waste	17,086 76
Switchmen, watchmen, flag and signal men	91,345 55
Repairs of passenger, mail and baggage cars	38,707 64
New passenger, mail and baggage cars	8,894 33
Damages and gratuities to passengers	6,091 97
Salaries wages and incidentals of passenger trains	119,084 10
Salaries wages and incidentals of passenger stations	94,879 53
Repairs of freight cars	33,993 45
Damages and gratuities, freight	1,315 13
Salaries, wages and incidentals of freight trains	76,567 64
Salaries, wages and incidentals of freight stations	113,745 44
Freight-car mileage (debit balances)	21,814 94
TOTAL EXPENSES	\$1,354,755 48
PROPERTY ACCOUNTS : CREDITS DURING THE YEAR.	
Buildings sold	\$600 00
Boiler sold, steamer "Mt. Washington"	800 00
REDUCTION TO PROPERTY ACCOUNT FOR THE YEAR	\$1,400 00
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$9,512,615 54
Equipment account	1,242,230 00
Other permanent investments (<i>as follows</i>):	786,836 67
Stock of Dover & Winnipiseogee Railroad	\$263,144 48
Stock and bonds of Newburyport Railroad	302,001 95
Stock of Danvers Railroad and account	27,430 00
Bonds of Danvers Railroad	125,000 00
Steamer "Mt. Washington" and wharfs	69,260 24
Cash items (<i>as follows</i>):	381,431 95
Cash	\$217,304 93
Bills receivable	142,379 75
Due from agents and companies	21,747 27
Other assets (<i>as follows</i>):	235,256 93
Materials and supplies	\$143,945 81
Dover & Winnipiseogee Railroad improvements, ...	26,502 73
Boston & Maine Railroad stock	27,000 00
Lowell & Andover Railroad betterments	31,127 06
Debit balances	6,681 33
TOTAL ASSETS	\$12,158,371 09

LIABILITIES.	
Capital stock	\$6,921,274 52
Funded debt	3,500,000 00
Unfunded debt (<i>as follows</i>):	108,103 16
Interest unpaid	\$4,445 00
Dividends unpaid	12,149 00
Notes payable	12,009 08
Vouchers and accounts	79,500 08
Profit & Loss balance (surplus)	1,628,993 41
TOTAL LIABILITIES	\$12,158,371 09
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	957,498
Freight-train mileage	405,921
Switching-train mileage	213,472
Other train mileage	32,728
TOTAL TRAIN MILEAGE	1,609,619
Number of season-ticket passengers	1,229,408
Number of local passengers (including season)	4,503,406
Number of through passengers	68,769
TOTAL NUMBER OF PASSENGERS	4,572,175
Local passenger mileage (local passengers carried one mile)	56,078,362
Through passenger mileage (through passengers carried one mile), ...	8,896,391
Number of tons of local freight carried	436,955
Number of tons through freight carried	248,643
TOTAL NUMBER OF TONS FREIGHT CARRIED	685,598
Local freight mileage (tons local freight carried one mile)	17,470,010
Through freight mileage (tons through freight carried one mile), ...	14,864,285
Average weight of passenger trains (exclusive of passengers)	136tons.
Average number of cars in passenger trains	6
Average weight of freight trains (exclusive of freight)	253tons.
Average number of cars in freight train	25
Average number of persons employed (per month)	1,517
DESCRIPTION OF ROAD.	
Length of main line of road from Boston to Portland, Me.	115.50 miles.
Length of main line of road in Massachusetts	36.75 "
Length of main line of road in New Hampshire	34.75 "
Length of main line of road in Maine	44.00 "
Length of double track on main line	37.09 "
Same in Massachusetts	32.75 "
Branches owned by company:—	
Medford (single track), length	2.00 "
Methuen (1 mile double, 2.75 miles single track)	3.75 "
Great Falls, single track	2.75 "
Salmon Falls to South Berwick Junction, single track	2.50 "
Total length of branches owned by company	11.00 "
Total length of branches owned by company in Massachusetts	5.75 "
Total length of branches owned by company in New Hampshire, ...	2.75 "
Total length of branches owned by company in Maine	2.50 "
Length of double track on branches	1 mile.
Same in Massachusetts	1 "
Total length of road belonging to this company	126.50 miles.
Aggregate length of sidings and other tracks not above enumerated	72.134 "
Same in Massachusetts	38.848 "
Aggregate length of track, computed as single track	236.724 "
Same in Massachusetts	106.838 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 60 pounds.]	117.230 "

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Name, description and length of each:—

Newburyport Railroad, length	26.979 miles.
Danvers Railroad, length	9.259 "
Dover & Winnipiseogee Railroad, length	29 "
West Amesbury Railroad, length	4.5 "
Lowell & Andover Railroad, length	8.73 "
Total length of above roads	78.468 "
Total length of above roads in Massachusetts	47.218 "
Total length of above roads in other States (specifying each):—	
West Amesbury Branch Railroad in New Hampshire	2.25 "
Dover & Winnipiseogee Railroad in New Hampshire	29 "
Total miles of road operated by this company	202.20 "
Total miles of road operated by this company in Massachusetts, Number of stations in Massachusetts on all roads operated by this company	84.70 "
Number of telegraph offices in same	85
Number of stations on all roads owned by this company	40
Same in Massachusetts	52
	27

EQUIPMENT.

Number of locomotives	79
Number of passenger cars	128
Number of baggage, mail and express cars	31
Number of parlor or sleeping cars	5
Number of freight cars (basis of 8 wheels)	1,224
Number of other cars	134

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	—	1	4	1	4	1	4
Employés	—	1	3	—	3	1	3	2
Others	—	—	9	2	9	2	10	4

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 7, 1878. — Abigail Wildes, walking on track near Georgetown, was struck by train and slightly injured.

October 22. — J. H. R. Hill, jumped off a moving passenger train near Oak Grove Station; was struck by train going towards Boston and instantly killed.

November 9. — J. H. Sullivan, employé, while switching cars at Prison Point, was struck on leg by switch-rope and had ankle broken.

November 11. — Bridget Heffron, while driving a cow on the track near Malden, was struck by passenger train and instantly killed.

December 4. — Michael Mahoney, while lying on the track near Bradford station, was run over by a passenger train and instantly killed.

December 9. — William Chamberlain, walking on track near Bradford station during a heavy snow-storm, was run over by a passenger train and killed.

December 20. — Charles H. Kelly, walking on track near Ward Hill, was struck by a passenger train and instantly killed.

December 24. — Martin Mullen, walking on track near Edgeworth, was struck by a passenger train and slightly injured.

December 24. — Michael Farrell, while attempting to get on a moving passenger train at Boston, fell upon the track, and one of his arms was cut off.

January 7, 1879. — John Hartnett, employé, was run over by switching engine at Boston engine-house, and so much injured that he died next day.

January 24. — John Stracham, jumped off a moving passenger train at Lowell Junction, and was slightly injured.

March 29. — Richard Cuff, jumped off a moving passenger train near Stoneham station, and had his right leg cut off.

April 25. — George W. Mitchell, walking on track near Somerville station, was struck by a passenger train and instantly killed.

April 28. — A. R. Houtch, employé, was run over by switching engine at Boston engine-house, and so much injured that he died a few days after.

June 7. — John C. Mahoney, walking on track near Malden, was struck by a passenger train and instantly killed.

June 21. — Thomas Holbrook, attempting to leave a moving train at Park Street station, was slightly injured.

August 12. — Oscar Leonard, seven years old, while playing about the cars at Haverhill station, had both feet crushed by the cars.

August 30. — William T. Clark, employé, fell from the top of a freight car at Lawrence upon the track, and was run over and instantly killed.

September 18. — Henry Head, walking on track near Bradford station, was struck by a passenger train, and so much injured that he died.

September 25. — James Batchelder, walking on track near Ward Hill, was struck by a passenger train and instantly killed.

NAME AND RESIDENCE OF OFFICERS.

Nathaniel G. White, *President*, Lawrence, Mass. James T. Furber, *Superintendent*, Lawrence, Mass. W. J. C. Kenney, *General Freight Agent*, Danvers, Mass. Amos Blanchard, *Treasurer*, Lowell, Mass. Chauncey P. Judd, *Clerk of Corporation*, Reading, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Nathaniel G. White, Lawrence, Mass. George C. Lord, Boston, Mass. Amos Paul, South Newmarket, N.H. Nathaniel J. Bradlee, Boston, Mass. William S. Stevens, Dover, N.H. James R. Nichols, Haverhill, Mass. John Felt Osgood, Boston, Mass. Samuel E. Spring, Portland, Me. Nathaniel W. Farwell, Lewiston, Me.

PROPER ADDRESS OF THE COMPANY.

BOSTON & MAINE RAILROAD, BOSTON, Mass.

NATHANIEL G. WHITE,
 GEORGE C. LORD,
 AMOS PAUL,
 NATH'L J. BRADLEE,
 WM. S. STEVENS,
 JAMES R. NICHOLS,
 S. E. SPRING,
 N. W. FARWELL,
Directors.
 A. BLANCHARD,
Treasurer.
 JAS. T. FURBER,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 5, 1879. Then personally appeared Nathaniel G. White, George C. Lord, Amos Paul, Nathaniel J. Bradlee, Wm. S. Stevens, James R. Nichols, S. E. Spring, N. W. Farwell, A. Blanchard and James T. Furber, and severally made oath to the truth of the foregoing statement by them subscribed, according to their best knowledge and belief.

Before me,

C. P. JUDD,

Justice of the Peace.

I have examined the foregoing report of the Directors of the Boston & Maine Railroad, and approve the same.

GEORGE FOSTER,

Commissioner for Massachusetts.

GENERAL INFORMATION.

Maximum weight of locomotives in working order	35 tons.
Average weight of locomotives in working order	28.18 "
Maximum weight of tenders full of fuel and water	20.75 "
Average weight of tenders full of fuel and water	15.98 "
Maximum weight of passenger cars	18 "
Average weight of passenger cars	15 "
Average weight of mail and baggage cars	13 "
Average weight of 8-wheel box freight cars	9 "
Average weight of 4-wheel box freight cars	4½ "
Average weight of 8-wheel platform cars	7 "
Average weight of 4-wheel platform cars	3½ "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender	42 ft. 6 in.
Total length of heaviest engine and tender over all	50 "
Number of locomotives equipped with train-brake	42
[Kind of brake: Smith's Vacuum.]	
Number of cars equipped with train-brake	149
[Kind of brake: Smith's Vacuum.]	
Number of passenger cars with Miller platform and buffer	126
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities (specifying location of same):—	
From main line to Medford, Mass.	1.75 miles.
From main line to Merrimac, Mass.	4 50 "
From Bradford to Georgetown, Mass.	6.50 "
Number of spans of bridges, of 25 feet and upwards	36
Number of iron bridges (aggregate length feet, 163)	3
Number of wooden bridges (aggregate length feet, 6,656)	29
Number of crossings of highways at grade	52
Number of crossings of highways over railroad	17
Number of crossings of highways under railroad	6
Number of highway bridges 18 feet above track	1
Number of highway bridges less than 18 feet above track	16
Number of crossings at which gates or flagmen are maintained, ...	38
Number of crossings at which there are neither electric signals, gates nor flagmen	14
Number of railroad crossings at grade (specifying each):	7
Union Freight Railroad, at Boston, Mass.	
Fitchburg Railroad, at Boston, Mass.	
Boston & Lowell Railroad, at Boston, Mass.	
Eastern Railroad, at Boston, Mass.	
Grand Junction Railroad, at Boston, Mass.	
Salem & Lowell Railroad, at Wilmington, Mass.	
Boston & Lowell Railroad, at Lawrence, Mass.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	2.296 cents.
---	--------------

Average rate of fare per mile <i>received</i> from passengers to and from other roads	1.718 cents.
Average rate of fare per mile for season-ticket passengers	.827 “
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	1.934 “
Average rate of local freight per ton per mile on roads operated by this company	3.15 “
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	1.75 “

RELATING TO PASSENGERS.

Passengers to Boston (including season) *	1,712,388
Passengers from Boston (including season) *	1,756,936
Season-ticket passengers to and from Boston *	1,038,852

CAPITAL STOCK.

Capital stock authorized by charter	\$7,000,000 00
Capital stock authorized by votes of company	7,000,000 00
Capital stock issued (number of shares, 70,000); amount paid in, ...	\$6,921,274 52
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	6,921,274 52
Total number of stockholders	4,370
Number of stockholders in Massachusetts	2,443
Amount of stock held in Massachusetts	\$4,830,800 00

DEBT.

Funded debt, as follows :—

Bonds due Jan. 1, 1893, rate of interest 7 per cent	\$1,500,000 00
Interest paid on same during year	\$106,977 50
Bonds due Jan. 1, 1894, rate of interest 7 per cent	2,000,000 00
Interest paid on same during year	140,245 00
TOTAL AMOUNT OF FUNDED DEBT	3,500,000 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT
OF THE
BOSTON & MYSTIC VALLEY RAILROAD COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.

TREASURER'S OFFICE,
BOSTON & MYSTIC VALLEY RAILROAD COMPANY,
WOBURN, November 5, 1879.

To the Honorable Board of Railroad Commissioners of Massachusetts.

GENTLEMEN, — The time has come when the annual report should be made and sent to your office; but in place of such report I am obliged to submit the following statement:—

About the 1st of April last past, Sydney P. Pratt, who had held the position as treasurer of this corporation from its permanent organization to that time, suddenly disappeared, and nothing has been seen or heard from or of him by the officers of this company to this time. On the 22d of April I accepted the position thus made vacant, and the general office of the company was changed from Boston to Woburn, where it has since been. A quantity of books and papers, in the office of the attorney of the road, was designated to me as the books and papers of the Boston & Mystic Valley Railroad Company, which had been brought there by one Wilkins who had been a clerk in the employ of the said Pratt. I had them all sent to the general office at this place, and immediately commenced an examination of them for the purpose of ascertaining, if possible, the standing and condition, financially and otherwise, of the company. I found the books of record to appear to have been well and faithfully kept by the then clerk, Mr. George H. Sargent, but the books of account, or what appeared to be the books of account, were incomplete and imperfect, and in such condition that it is impossible for me to make a report from them, or even to verify the report by them made last year; indeed, in such condition as to lead to the belief that I have not the original and regular books of account of the company. Diligent and extensive search and inquiries for other books and papers that appear to be missing have been made, but none of value have been found. No work has been done on the road since April, and but little, if any, since last report with supplement by Pratt.

The officers of the company are: *Directors*, — Stephen Dow, *President*; S. W. Twombly, *Vice-President*; J. P. Thompson, P. W. Locke and E. J. Crossman; *Clerk and Treasurer*, H. C. Hall.

I will add that the debt of the company (there is no bonded debt) is now in process of adjustment, and it is confidently expected that at the annual meeting in January next the company will be re-organized and placed upon a basis such as will insure the early completion and operation of its road.

Respectfully submitted.

H. C. HALL, *Treasurer*.

NOTE. — For further particulars, see Tenth Annual Report, pages 363-374.

REPORT

OF THE

BOSTON & PROVIDENCE RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$1,178,238 29
Total expense (including taxes)	782,695 77
Net income	395,542 52
Rentals:—	
Attleborough Branch	10,917 27
Interest accrued during year:—	
On funded debt	53,249 12
Dividends declared (6½ per cent)	260,000 00
Balance for the year (surplus)	71,376 13
Balance at commencement of year	363,127 39
Balance September 30, 1879 (surplus)	434,503 52
ANALYSIS OF EARNINGS.	
From local passengers	\$533,095 71
through passengers (to and from other roads)	162,074 07
express	29,600 81
mails	9,693 54
<i>Total earnings from passenger department</i>	734,464 13
From local freight	238,983 92
through freight (to and from other roads)	185,195 51
<i>Total earnings from freight department</i>	424,179 43
TOTAL TRANSPORTATION EARNINGS	1,158,643 56
Rents for land and buildings	19,594 73
TOTAL INCOME FROM ALL SOURCES	\$1,178,238 29
ANALYSIS OF EXPENSES.	
Taxes	\$60,152 60
General salaries, office expenses and miscellaneous	29,263 87
Insurance	229 00
Telegraph expenses	1,303 26
Repairs of roads	70,039 70
Steel rails	25,709 51
[Number of tons laid, 700.]	
New ties	11,001 84
[Number laid, 27,500.]	
Repairs of bridges	24,738 39
Repairs of buildings	21,167 25
Repairs of fences, road crossings and signs	4,411 16
Removing ice and snow	2,826 03
Repairs of locomotives	45,297 73
Fuel, locomotive power	74,762 99
Oil and waste	6,266 04

Switchmen, watchmen, flag and signal men	\$42,235 38
Repairs of passenger, mail and baggage cars	23,490 41
Damages and gratuities to passengers	4,304 35
Salaries, wages and incidentals of passenger trains	118,425 06
Salaries, wages and incidentals of passenger stations	65,882 70
Repairs of freight cars	21,714 81
Damages and gratuities, freight	360 84
Salaries, wages and incidentals of freight trains	72,007 85
Salaries, wages and incidentals of freight stations	57,105 00
TOTAL EXPENSES	\$782,695 77

PROPERTY ACCOUNTS : CHARGES AND CREDITS DURING THE
YEAR.

Two shares common stock Providence, Warren & Bristol Railroad	\$10 00
Property sold (or reduced in valuation on the books) and credited property accounts during the year (specifying same) : —	
Dividend on stock of Providence, Warren & Bristol Railroad, credited to cost of stock	8,580 00
Land sold near Dartmouth Street bridge to city of Boston	479 38
Total amount credited to property account	9,059 38
NET REDUCTION TO PROPERTY ACCOUNT FOR THE YEAR	9,049 38

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$4,405,374 38
Equipment account	207,400 00
Other permanent investments:	637,215 55
Lands	\$213,816 13
Stock of Providence, Warren & Bristol Railroad, ...	258,985 00
Stock of Union Freight Railroad	79,014 42
Stock of Stoughton Branch Railroad	85,400 00
Cash items:	214,178 36
Cash	\$28,773 76
Bills receivable	131,775 00
Due from agents and companies	53,629 60
Other assets:	97,589 58
Materials and supplies	\$97,589 58
TOTAL ASSETS	\$5,561,757 87

LIABILITIES.

Capital stock	\$4,000,000 00
Funded Debt	920,000 00
Unfunded debt:	207,254 35
Interest unpaid	\$16,100 00
Dividends unpaid	144,982 00
Vouchers and accounts	46,172 35
Profit & Loss balance (surplus)	434,503 52
TOTAL LIABILITIES	\$5,561,757 87

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	542,617
Freight-train mileage	221,442
Switching-train mileage	47,797
TOTAL TRAIN MILEAGE	811,856

Number of season-ticket passengers *	1,213,579
Number of local passengers (including season)	2,745,018
Number of through passengers	461,470
TOTAL NUMBER OF PASSENGERS	3,206,488
Local passenger mileage (local passengers carried one mile)	26,768,658
Through passenger mileage (through passengers carried one mile)	11,190,645
Number of tons of local freight carried	253,048
Number of tons through freight carried	340,298
TOTAL NUMBER TONS FREIGHT CARRIED	593,346
Local freight mileage (tons local freight carried one mile)	6,448,478
Through freight mileage (tons through freight carried one mile)	12,257,309
Average weight of passenger trains (exclusive of passengers)	313,280 lbs.
Average number of cars in passenger train	6
Average weight of freight trains (exclusive of freight)	577,850 lbs.
Average number of cars in freight train	28
Average number of persons employed	711

DESCRIPTION OF ROAD.

Length of main line of road from Boston to Providence	44 miles.
Length of main line of road in Massachusetts	38.142 "
Length of main line of road in Rhode Island	5.858 "
Length of double track on main line	44 "
Same in Massachusetts	38.142 "
Branches owned by company :—	
West Roxbury (single track), length	5.366 "
Dedham (single track), length	2.224 "
India Point (single track), length	8.048 "
Stoughton (single track), length	4.114 "
Total length of branches owned by company	19.752 "
Total length of branches owned by company in Massachusetts	15.189 "
Total length of branches owned by company in Rhode Island	4.563 "
Total length of road belonging to this company	63.752 "
Aggregate length of sidings and other tracks not above enumerated	42.202 "
Same in Massachusetts	30.964 "
Aggregate length of track, computed as single track	149.954 "
Same in Massachusetts	122.437 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 53 pounds.]	89 "

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Attleborough Branch, length	4 miles.
Total length of above roads in Massachusetts	4 "
Total miles of road operated by this company	67.752 "
Total miles of road operated by this company in Massachusetts,	57.331 "
Number of stations in Massachusetts on all roads operated by this company	43
Number of telegraph offices in same	13
Number of stations on all roads owned by this company	41
Same in Massachusetts	37

EQUIPMENT.

Number of locomotives	46
Number of passenger cars	97
Number of baggage, mail and express cars	17
Number of freight cars (basis of 8 wheels)	401
Number of other cars	291

* Reckoning twelve passengers per week for time of each season ticket.

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .	-	-	-	-	-	-	-	-
Employés .	-	-	-	-	-	-	1	-
Others. . .	-	-	5	4	5	4	5	4

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

November 18, 1878. — George Bunn, an employé of Kinsley Iron and Machine Company at Canton, was killed in their yard by being hit by a freight car which was running wild, having been started from some unknown cause from a side track on a descending grade. He was 50 years old, and left a wife and several children.

December 7. — Frank Rice, 11 years old, who lived at No. 53 Cabot Street, Boston Highlands, was fatally injured by a train near Chickering Station while running beside the train in play.

December 24. — James D. Moranville, musician, who lived at No. 2 Notre Dame Street, Jamaica Plain, 40 years of age, was fatally injured by a train which hit him while attempting to cross the tracks about 30 rods north of Boylston Station.

December 25. — While carelessly crossing the track near Mansfield Station in a milk wagon, Thomas Skinner had a thumb and finger crushed, and sustained some bruises.

January 3, 1879. — Michael Bradley was hit by a train between Old and New Heath Streets while walking on track. He was 50 years old, lives at No. 150 Terry Street with a married daughter, having a wife and several children; no apparent occupation.

March 22. — Timothy Larkin, brakeman on night freight train from Providence, was hit by a bridge one-half mile south of Pawtucket, and instantly killed. He was 26 years old, lived at 27 Coventry Street, Boston Highlands, and leaves a wife and child.

April 12. — A young man named Robert Davis was injured at coal-sheds in Hyde Park by falling and having one arm run over by one wheel of a dump-car.

April 15. — Bernard Daley, aged 12½ years, who lived at Tremont Place, while trying to jump on or cling to a passing freight train, stumbled probably, and fell under the wheels of a car and was killed.

June 10. — Edward R. Williams, 7 years of age, living at No. 15 Arlington Street, while playing on the track near south end of Boston passenger station, was run over by a train, and had both feet crushed so as to require amputation.

July 9. — John Wooley, residing at No. 37 Salutation Street, Boston Highlands, while crossing track near machine-shop, was hit by 1.15 P.M. outward train, and received a compound fracture of left leg.

NAME AND RESIDENCE OF OFFICERS.

Henry A. Whitney, *President*, Boston, Mass. Albert A. Folsom, *Superintendent*, Boston, Mass. William H. Morrell, *General Freight Agent*, Dedham, Mass. James Dailey, *General Passenger Agent*, Boston, Mass. Benjamin B. Torrey, *Treasurer*, Boston, Mass. Winslow Warren, *Clerk of Corporation*, Boston and Dedham, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Henry A. Whitney, Boston, Mass. T. P. I. Goddard, Providence, R.I.
 J. Huntington Wolcott, Boston, Mass. William R. Robeson, Boston, Mass.
 Francis M. Weld, Boston, Mass. Joseph W. Balch, Boston, Mass. Royal C.
 Taft, Providence, R.I.

PROPER ADDRESS OF THE COMPANY.

BOSTON & PROVIDENCE RAILROAD CORPORATION,
 BOSTON, MASS.

HENRY A. WHITNEY,
 T. P. I. GODDARD,
 F. M. WELD,
 J. W. BALCH,
 ROYAL C. TAFT,

Directors.

B. B. TORREY,

Treasurer.

A. A. FOLSOM,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 11, 1879. Then personally appeared Henry A. Whitney, F. M. Weld, J. W. Balch, B. B. Torrey and A. A. Folsom, and severally made oath to the truth of the foregoing statement by them subscribed.

JAMES DAILEY,

Justice of the Peace.

STATE OF RHODE ISLAND.

COUNTY OF PROVIDENCE. In the city of Providence on the eighth day of November, A.D. 1879, personally appeared the above-named Thomas P. I. Goddard and Royal C. Taft, and severally made oath to the truth of the foregoing statement by them subscribed.

Before me,

JOHN WILSON SMITH,

Notary Public.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	70,400 lbs.
Average weight of locomotives in working order . . .	61,000 "
Maximum weight of tenders full of fuel and water . . .	50,930 "
Average weight of tenders full of fuel and water . . .	37,000 "
Maximum weight of passenger cars . . .	36,000 "
Average weight of passenger cars . . .	32,000 "
Average weight of mail and baggage cars . . .	38,500 "
Average weight of 8-wheel box freight cars . . .	16,000 "
Average weight of 4-wheel box freight cars . . .	8,500 "
Average weight of 8-wheel platform cars . . .	14,000 "
Average weight of 4-wheel platform cars . . .	7,550 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	42 feet 4 in.

Total length of heaviest engine and tender over all . . .	52 feet 3 in.
Number of locomotives equipped with train-brake . . .	30
[Kind of brake: Westinghouse Air.]	
Number of cars equipped with train-brake . . .	113
[Kind of break: Westinghouse Air.]	
Number of passenger cars with Miller platform and buffer . . .	111
Number of spans of bridges, of 25 feet and upwards . . .	16
Number of iron bridges (aggregate length, 394 feet) . . .	12
Number of wooden bridges (aggregate length, 421 feet) . . .	6
Number of crossings of highways at grade . . .	54
Number of crossings of highways over railroad . . .	30
Number of crossings of highways under railroads . . .	7
Number of highway bridges 18 feet above track . . .	9
Number of highway bridges less than 18 feet above track . . .	21
Number of crossings at which gates or flagmen are maintained, . . .	39
Number of crossings at which electric signals are maintained . . .	2
Number of crossings at which there are neither electric signals, gates nor flagmen . . .	15
Number of railroad crossings at grade (specifying each): . . .	1
Boston & Albany.	
Number of railroad crossings under other railroads: . . .	2
New York & New England at Readville.	
Providence & Worcester in Attleborough.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .	2.26 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads . . .	1.56 "
Average rate of fare per mile for season-ticket passengers * . . .	1.1 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . . .	1.8 "
Average rate of local freight per ton per mile on roads operated by this company . . .	4.1 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads . . .	1.5 "

RELATING TO PASSENGERS.

Passengers to Boston (including season) * . . .	1,200,770
Passengers from Boston (including season) * . . .	1,316,544
Season-ticket passengers to and from Boston * . . .	1,078,675

CAPITAL STOCK.

Capital stock authorized by charter . . .	\$4,000,000 00
Capital stock authorized by votes of company . . .	4,000,000 00
Capital stock issued (number of shares, 40,000); amount paid in, . . .	\$4,000,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. . .	
Total number of stockholders . . .	1,667
Number of stockholders in Massachusetts . . .	1,330
Amount of stock held in Massachusetts . . .	\$3,295,900

DEBT.

Funded debt, as follows:—	
Bonds due 1893, rate of interest 7 per cent . . .	\$500,000 00
Interest paid on same during year . . .	\$35,000
Notes payable due at various times between 1879 and 1882, interest at 7 per cent . . .	420,000 00
TOTAL AMOUNT OF FUNDED DEBT . . .	920,000 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT OF THE BOSTON, REVERE BEACH & LYNN RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[A Narrow-gauge Road.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$133,430 34
Total expense (including taxes)	90,435 58
Net income	42,994 76
Interest accrued during the year	19,388 24
On funded debt	\$3,138 02
On other debt	16,250 22
Dividends declared (6 per cent)	20,952 00
Balance for the year (surplus)	2,654 52
Balance at commencement of year	\$60,011 48
Deduct: entries made in Profit & Loss account during the year not included in the above statement:—	
Discount on bonds	\$6,975 00
Depreciation	6,133 31
	13,108 31
Balance at commencement of year as so changed, ...	46,903 17
Balance September 30, 1879 (surplus)	49,557 69
ANALYSIS OF EARNINGS.	
From local passengers	\$128,163 42
through passengers (to and from other roads)	3,299 31
other sources, passenger department	1,967 61
Total earnings from passenger department	133,430 34
TOTAL TRANSPORTATION EARNINGS	133,430 34
ANALYSIS OF EXPENSES.	
Taxes	\$3,576 79
General salaries, office expenses and miscellaneous	12,830 20
Insurance	758 10
Ferry expenses	18,300 44
Repairs of road	6,554 57
Steel rails	3,219 00
[Number of tons laid, 100.]	
New ties	263 54
[Number laid, 1,320.]	
Repairs of bridges	322 96
Repairs of buildings	1,632 61
Repairs of machine-shops and machinery	603 52
Repairs of fences, road crossings and signs	390 10
Removing ice and snow	281 45
Repairs of locomotives	3,143 48

Fuel, locomotive power	\$6,199 75
Water and water stations	780 47
Fuel for cars, stations, shops and stationary engines	759 07
Oil and waste	1,177 97
Switchmen, watchmen, flag and signal men	5,251 25
Repairs of passenger, mail and baggage cars	5,453 02
Damages and gratuities to passengers	100 00
Salaries, wages and incidentals of passenger trains	14,169 52
Salaries, wages and incidentals of passenger stations	4,667 77
TOTAL EXPENSES	\$90,435 58
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Grading and masonry	\$8,789 75
Superstructure, including rails	1,343 37
Land, land damages and fences	3,209 70
Passenger and freight stations, wood-sheds and water station	16,324 80
Machine-shops	464 66
TOTAL FOR CONSTRUCTION	30,132 28
Other expenditures charged to property account:—	
Ferry	1,348 29
Real estate	20,486 59
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS, ...	51,967 16
Bridging	\$4,000 00
Stations	5,132 63
Engine-houses	217 87
Real estate	3,000 00
TOTAL CREDITS TO PROPERTY ACCOUNTS, ...	12,350 50
NET ADDITION TO PROPERTY ACCOUNT FOR THE YEAR, ...	39,616 66
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$418,229 30
Equipment account	94,369 67
Other permanent investments (<i>as follows</i>):	154,453 11
Lands	\$43,486 59
Ferry	110,966 52
Cash items (<i>as follows</i>):	2,782 93
Cash	\$2,407 93
Bills receivable	375 00
Other assets (<i>as follows</i>):	9,400 26
Materials and supplies	\$6,983 85
Debit balances	2,416 41
TOTAL ASSETS	\$679,235 27
LIABILITIES.	
Capital stock	\$349,200 00
Funded debt	138,000 00
Unfunded debt (<i>as follows</i>):	142,477 58
Dividends unpaid	\$467 00
Notes payable	133,548 00
Vouchers and accounts	8,462 58
Profit & Loss balance (surplus)	49,557 69
TOTAL LIABILITIES	\$679,235 27
<i>Present or Contingent Liabilities not included in the Balance Sheet.</i>	
State of Massachusetts for flats at East Boston	\$1,715 00

MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	103,787
Other train mileage	7,365
TOTAL TRAIN MILEAGE	111,152
Number of season-ticket passengers *	102,882
Number of local passengers (including season)	751,764
Number of through passengers	29,077
TOTAL NUMBER OF PASSENGERS	780,841
Local passenger mileage (local passengers carried one mile)	4,854,466
Through passenger mileage (through passengers carried one mile)	76,738
Average weight of passenger trains (exclusive of passengers)	48 tons
Average number of cars in passenger trains	3.03
Average number of persons employed	70
DESCRIPTION OF ROAD.	
Length of main line of road from East Boston to Lynn	8.8 miles.
Length of main line of road in Massachusetts	8.8 "
Total length of road belonging to this company	8.8 "
Aggregate length of sidings and other tracks not above enumerated	2.4 "
Same in Massachusetts	2.4 "
Aggregate length of track, computed as single track	11.2 "
Same in Massachusetts	11.2 "
Total length of steel rails in tracks, not including steel top rails, [Weights per yard, 50 pounds.]	1,909 "
Total miles of road operated by this company	8.8 "
Total miles of road operated by this company in Massachusetts, ...	8.8 "
Number of stations in Massachusetts on all roads operated by this company	12
Number of stations on all roads owned by this company	12
Same in Massachusetts	12
EQUIPMENT.	
Number of locomotives	5
Number of passenger cars	23
Number of freight cars (basis of 8 wheels)	4
Number of other cars	19

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	-	-	-	-	-	-	-	-
Employés	-	-	-	-	-	-	-	-
Others	-	-	1	-	1	-	1	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

January 2, 1879. — A deaf man named William Clayton was struck by the locomotive and killed while walking on the track a few rods south of the Beachmont Station.

NAME AND RESIDENCE OF OFFICERS.

Edwin Walden, *President*, Lynn, Mass. Edward H. Whorf, *Superintendent*, Revere, Mass. John G. Webster, *Treasurer*, Boston, Mass. John A. Fenno, *Clerk of Corporation*, Newton, Mass.

* Reckoning twelve passengers per week for time of each season ticket.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Edwin Walden, Lynn, Mass. John B. Alley, Lynn, Mass. Henry Breed, Lynn, Mass. A. B. Martin, Lynn, Mass. Charles W. Slack, Boston, Mass. David Loring, Boston, Mass. John G. Webster, Boston, Mass. David L. Webster, Boston, Mass. Edward Tyler, Boston, Mass. T. B. Dix, Boston, Mass. Nehemiah Gibson, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

BOSTON, REVERE BEACH & LYNN RAILROAD COMPANY,
350 ATLANTIC AVENUE, BOSTON, MASS.

EDWIN WALDEN,
JOHN G. WEBSTER,
CHAS. W. SLACK,
T. B. DIX,
DAVID L. WEBSTER,
EDW. TYLER,
Directors.
JOHN G. WEBSTER,
Treasurer.
EDW. H. WHORF,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, SS. BOSTON, October 30, 1879. Then personally appeared Edwin Walden, John G. Webster, Charles W. Slack, T. B. Dix, David L. Webster, Edward Tyler and Edward H. Whorf, and severally made oath to the truth of the foregoing statement by them subscribed.

CHAS. BIRD,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	22½ tons.
Average weight of locomotives in working order . . .	20 "
Maximum weight of passenger cars	10½ "
Average weight of passenger cars	9¼ "
Average weight of 8-wheel box freight cars	5 "
Average weight of 8-wheel platform cars	4 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender,	30.8 feet.
Total length of heaviest engine and tender over all . . .	38.8 "
Number of locomotives equipped with train-brake . . .	5
[Kind of brake: Eames' vacuum.]	
Number of cars equipped with train-brake	23
[Kind of brake: Eames' vacuum.]	
Number of passenger cars with Miller platform and buffer .	23
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities (specifying location of same):	8.8 miles.
From East Boston to Lynn.	
Number of spans of bridges, of 25 feet and upward . . .	2
Number of wooden bridges (aggregate length, 5,362 feet) . .	5
Number of crossings of highways at grade	9
Number of crossings of highways over railroad	3

Number of highway bridges less than 18 feet above track . . .	1
Number of crossings at which gates or flagmen are maintained,	6
Number of crossings at which there are neither electric signals, gates nor flagmen	3
RATES OF FARE, ETC.	
Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .	2.53 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	3.5 "
Average rate of fare per mile for season-ticket passengers * . .	1.01 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . .	2.66 "
RELATING TO PASSENGERS.	
Passengers to Boston (including season) *	336,342
Passengers from Boston (including season) *	331,984
Season-ticket passengers to and from Boston *	101,556
CAPITAL STOCK.	
Capital stock authorized by charter \$350,000 00	
Capital stock authorized by votes of company 350,000 00	
Capital stock issued (number of shares, 3,492); amount paid in, . .	\$349,200 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. . .	349,200 00
Total number of stockholders 216	
Number of stockholders in Massachusetts 210	
Amount of stock held in Massachusetts \$344,600 00	
DEBT.	
Funded debt, as follows:—	
First mortgage bonds due 1897, rate of interest 6 per cent . .	\$138,000 00
Interest paid on same during year \$3,138 02	
TOTAL AMOUNT OF FUNDED DEBT	138,000 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT OF THE BOSTON, WINTHROP & POINT SHIRLEY RAIL- ROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[A Narrow-gauge Road.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$5,145 96
Total expense (including taxes)	6,024 82
Deficit	878 86
Interest accrued during the year	1,509 64
On funded debt	\$1,204 00
On other debt	305 64
Balance for the year (deficit)	2,388 50
Surplus at commencement of year	\$1,703 16
Add: entries made in Profit & Loss account during the year not included in the above statement:—	
Accounts payable	304 44
Amount due treasurer	157 41
Surplus at commencement of year as so changed	2,165 01
Balance September 30, 1879 (deficit)	223 49
ANALYSIS OF EARNINGS.	
From through passengers (to and from other roads)*	\$4,634 21
other sources, passenger department	511 75
TOTAL INCOME FROM ALL SOURCES	5,145 96
ANALYSIS OF EXPENSES.	
Taxes	\$34 89
General salaries, office expenses and mi-cellaneous	1,146 86
Insurance	20 00
Repairs of road	274 66
Removing ice and snow	8 00
Repairs of locomotives	91 24
Rent of locomotive hired	1,460 00
Fuel, locomotive power	963 87
Water and water stations	96 61
Fuel for cars, stations, shops and stationary engines	55 00
Oil and waste	173 24
Repairs of passenger, mail and baggage cars	88 23
Salaries, wages and incidentals of pas-senger trains	1,527 32
Passenger-car mileage (debit balances)	84 90
TOTAL EXPENSES	\$6,024 82
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Grading and masonry	\$700 83
Bridging	95 05

* Passengers are all carried to and taken from the Boston, Revere Beach & Lynn Railroad.

Superstructure, including rails	\$1,251 19
Land, land damages and fences	50 00
Passenger and freight stations, wood-sheds and water stations .	136 17
Engine-houses, car-sheds, and turn-tables	121 42
Machine-shops, tools	28 95
Engineering, agencies, salaries and other expenses during construction	1,571 39
Interest paid during construction (discount on bonds)	1,475 00
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS,	5,430 00

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$38,870 20
Equipment account	1,800 00
Profit & Loss balance (deficit)	223 49
TOTAL ASSETS	\$40,893 69

LIABILITIES.

Capital stock	\$19,450 00
Funded debt	18,000 00
Notes payable	3,443 69
TOTAL LIABILITIES	\$40,893 66

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	19,685 miles.
Switching-train mileage	132 "
Other train mileage	1,000 "
* TOTAL TRAIN MILEAGE	20,817 "
Number of season-ticket passengers *	23,160
Number of through passengers	44,790
TOTAL NUMBER OF PASSENGERS	67,950
Through passenger mileage (through passengers carried one mile)	101,925
Average weight of passenger trains (exclusive of passengers) .	18 tons.
Average number of persons employed	6

DESCRIPTION OF ROAD.

Length of main line of road from W. Junction to Winthrop .	2.55 miles.
Length of main line of road in Massachusetts	2.55 "
Total length of road belonging to this company	2.55 "
Aggregate length of sidings and other tracks not above enumerated	.30 "
Same in Massachusetts	.30 "
Aggregate length of track, computed as single track	2.85 "
Same in Massachusetts	2.85 "
Total miles of road operated by this company	2.55 "
Total miles of road operated by this company in Massachusetts,	2.55 "
Number of stations in Massachusetts on all roads operated by this company	6
Number of stations on all roads owned by this company . . .	6
Same in Massachusetts	6

EQUIPMENT.

Number of locomotives leased	1
Number of passenger cars leased, 1; owned, 1	2
Number of other cars, gravel cars, leased	8

* Reckoning twelve passengers per week for time of each season ticket.

NAME AND RESIDENCE OF OFFICERS.

Clarence A. Parks, *President*, Wakefield, Mass. Francis French, *Vice-President*, Keene, N.H. Clarence A. Parks, *General Manager and Superintendent*, Wakefield, Mass. John M. Wales, *General Passenger Agent*, Boston, Mass. Frank H. Hills, *Treasurer*, Boston, Mass. Edward Floyd, 2d, *Clerk of Corporation*, Winthrop, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Clarence A. Parks, Wakefield, Mass. Francis French, Keene, N.H. Samuel G. Irwin, Winthrop, Mass. John M. Wales, Boston, Mass. Frank H. Hills, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

BOSTON, WINTHROP & POINT SHIRLEY RAILROAD COMPANY,
No. 7 EXCHANGE PLACE, BOSTON, MASS.

CLARENCE A. PARKS,
JOHN M. WALES,
FRANK H. HILLS,
SAM'L G. IRWIN,
Directors.
FRANK H. HILLS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 3, 1879. Then personally appeared Clarence A. Parks, John M. Wales, Frank H. Hills and Samuel G. Irwin, Directors, and Frank H. Hills, Treasurer, and severally made oath to the truth of the foregoing statement by them subscribed.

WILLIAM EDSON,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	14 tons.
Average weight of locomotives in working order . . .	14 "
Maximum weight of passenger cars	5 "
Number of passenger cars with Miller platform and buffer .	1

BRIDGES BUILT WITHIN THE YEAR IN MASSACHUSETTS.

LOCATION.	KIND.	MATERIAL.	LENGTH.	WHEN BUILT.
Shirley Street Station, or Ocean Spray.	Short span of 15 feet resting on mud sills.	Wood.	15 feet.	November, 1878.
Number of spans of bridges, of 25 feet and upwards . . .				3
Number of wooden bridges				2
Number of crossings of highways at grade				2
Number of crossings at which there are neither electric signals, gates nor flagmen				2

RATES OF FARE, ETC.	
Average rate of fare per mile <i>received</i> from passengers to and from other roads	4.8 cents.
Average rate of fare per mile for season-ticket passengers*	2.48 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	3.8 "
CAPITAL STOCK.	
Capital stock authorized by charter	\$100,000 00
Capital stock authorized by votes of company	32,000 00
Capital stock issued (number of shares, 193); amount paid in	\$19,300 00
Capital stock paid in on shares not issued (number of shares, 7), ...	150 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.	19,450 00
Total number of stockholders	38
Number of stockholders in Massachusetts	34
Amount of stock held in Massachusetts	\$13,850 00
DEBT.	
Funded debt, as follows:—	
Bonds due May 1, 1882, rate of interest 7 per cent	\$12,000 00
Interest paid on same during year	\$1,001 00
Bonds due May 1, 1882, rate of interest 7 per cent	6,000 00
Interest paid on same during year	203 00
TOTAL AMOUNT OF FUNDED DEBT	18,000 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT OF THE CHESHIRE RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$503,049 61
Total expense (including taxes)	361,813 65
Net income	141,235 96
Rentals:—	
Vermont & Massachusetts Division of Fitchburg R.R., between South Ashburnham and Fitchburg	51,000 00
Interest accrued during year:—	
On funded debt	49,854 00
Dividends declared (1 per cent)	21,000 00
Balance for the year (surplus)	19,381 96
Balance at commencement of year	\$24,426 74
Deduct: entries made in Profit & Loss account during the year not included in the above statement:—	
Manchester and Keene	4,000 00
F. R.R. account, accident at Wachusett, 1877	6,000 00
Balance at commencement of year as so changed	14,426 74
Balance September 30, 1879 (surplus)	33,808 70
ANALYSIS OF EARNINGS.	
From local passengers	\$30,939 96
through passengers (to and from other roads)	103,620 37
express and extra baggage	6,392 47
mails	7,738 60
Total earnings from passenger department	148,691 40
From local freight	21,394 06
through freight (to and from other roads)	323,317 76
Total earnings from freight department	344,711 82
TOTAL TRANSPORTATION EARNINGS	493,403 22
Income from all other sources:	9,646 39
Rents of buildings, shop-work, etc.	\$7,164 86
Accretions	527 00
Interest	1,954 53
TOTAL INCOME FROM ALL SOURCES	503,049 61
ANALYSIS OF EXPENSES.	
Taxes	\$16,209 02
General salaries, office expenses and miscellaneous	13,162 82
Insurance	3,179 18
Telegraph expenses	2,444 90
Repairs of road	26,985 55
Steel rails	7,955 57
New ties	7,309 46
[Number of tons laid, 500.]	
[Number laid, 19,099.]	

Repairs of bridges	\$2,173 08
Repairs of buildings	11,304 62
Repairs of machine-shops and machinery	1,188 15
Repairs of fences, road crossings and signs	847 77
Removing ice and snow	1,208 32
Repairs of locomotives	24,842 16
Fuel, locomotive power	82,465 07
Water and water stations	2,448 08
Fuel for cars, stations, shops and stationary engines	4,675 00
Oil and waste	3,671 40
Switchmen, watchmen, flag and signal men	6,880 09
Repairs of passenger, mail and baggage cars	9,665 37
Damages and gratuities to passengers	40 00
Salaries, wages and incidentals of passenger trains	15,555 43
Salaries, wages and incidentals of passenger stations	6,134 59
Repairs of freight cars and gravel	17,868 85
Damages and gratuities, freight	142 48
Salaries, wages and incidentals of freight trains	56,827 08
Salaries, wages and incidentals of freight stations	23,509 90
Freight-car mileage (debit balances)	13,118 71

TOTAL EXPENSES	<u>\$361,813 65</u>
--------------------------	---------------------

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$2,395,268 94
Equipment account	322,266 32
Cash items (<i>as follows</i>):	185,165 75
Cash	\$109,965 94
Bills receivable	57,183 05
Due from agents and companies	18,016 76

Other assets:—

Materials and supplies	141,110 69
----------------------------------	------------

TOTAL ASSETS	<u>\$3,043,811 70</u>
------------------------	-----------------------

LIABILITIES.

Capital stock	\$2,153,300 00
Funded debt	831,000 00
Unfunded debt (<i>as follows</i>):	25,703 00
Interest unpaid	\$25,077 00
Dividends unpaid	626 00

Profit & Loss balance*	33,808 70
----------------------------------	-----------

TOTAL LIABILITIES	<u>\$3,043,811 70</u>
-----------------------------	-----------------------

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	125,544 miles
Freight-train mileage	369,185 "
Switching-train mileage	35,080 "
Other train mileage	18,267 "
TOTAL TRAIN MILEAGE	548,076 "
Number of season-ticket passengers*	6,348 "
Number of local passengers (including season)	57,851
Number of through passengers	67,337
TOTAL NUMBER OF PASSENGERS	125,188
Local passenger mileage (local passengers carried one mile)	1,070,750
Through passenger mileage (through passengers carried one mile)	2,903,401

* Reckoning twelve passengers per week for time of each season ticket.

Number of tons of local freight carried	23,148
Number of tons of through freight carried	395,552
TOTAL NUMBER OF TONS FREIGHT CARRIED	418,700
Local freight mileage (tons local freight carried one mile)	652,918
Through freight mileage (tons through freight carried one mile)	22,683,429
Average weight of passenger trains (exclusive of passengers)	64
Average number of cars in passenger trains	4
Average weight of freight trains (exclusive of freight)	153
Average number of cars in freight train	17
Average number of persons employed	329
DESCRIPTION OF ROAD.	
Length of main line of road from South Ashburnham to Bellows Falls	53.62 miles.
Length of main line of road in Massachusetts	10.81 "
Length of main line of road in New Hampshire	42.81 "
Total length of road belonging to this company	53.62 "
Aggregate length of sidings and other tracks not above enumerated	14.52 "
Same in Massachusetts	3.17 "
Aggregate length of track, computed as single track	68.14 "
Same in Massachusetts	13.98 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 60 pounds.]	43.32 "
<i>Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.</i>	
Joint use, under lease, of Vermont & Massachusetts Division of Fitchburg R.R., between South Ashburnham and Fitchburg	10.39 miles.
Total length of above road in Massachusetts	10.39 "
Total miles of road operated by this company	64.01 "
Total miles of road operated by this company in Massachusetts, Number of stations in Massachusetts on all roads operated by this company	21.20 "
Number of telegraph offices in same	7
Number of stations on all roads owned by this company	13
Same in Massachusetts	3
EQUIPMENT.	
Number of locomotives	30
Number of passenger cars	22
Number of baggage, mail and express cars	10
Number of freight cars (basis of 8 wheels)	404
Number of other cars	15

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	-	-	-	-	-	-	-	-
Employes	-	1	-	-	-	1	1	2
Others	-	-	-	-	-	-	-	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 22, 1878. — Thomas Condon, brakeman, fell from step ladder on car at North Ashburnham, and broke his arm.

NAME AND RESIDENCE OF OFFICERS.

William A. Russell, *President*, Lawrence, Mass. R. Stewart, *General Manager*, Keene, N.H. J. W. Dodge, *General Freight Agent*, Keene, N.H. F. H. Kingsbury, *General Passenger Agent*, Keene, N.H. F. W. Everett, *Treasurer*, Boston, Mass. R. Stewart, *Clerk of Corporation*, Keene, N.H.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William A. Russell, Lawrence, Mass. Ephraim Murdock, Jr., Winchendon, Mass. Samuel Gould, Boston, Mass. George F. Williams, Boston, Mass. John B. Meer, Boston, Mass. Edward C. Thayer, Keene, N.H. James H. Williams, Bellows Falls, Vt.

PROPER ADDRESS OF THE COMPANY.

CHESHIRE RAILROAD COMPANY, KEENE, N.H.

WM. A. RUSSELL,
E. MURDOCK, JR.,
GEO. F. WILLIAMS,
JOHN B. MEER,
SAM'L GOULD,
EDWARD C. THAYER,
J. H. WILLIAMS,
Directors.
F. W. EVERETT,
Treasurer.
R. STEWART,
General Manager.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, SS. BOSTON, November 12, 1879. Then personally appeared William A. Russell, E. Murdock, Jr., George F. Williams, John B. Meer, Samuel Gould, Edward C. Thayer, J. H. Williams, F. W. Everett and R. Stewart, and severally made oath to the truth of the foregoing statement by them subscribed.

SAM'L H. WISE,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	35 tons.
Average weight of locomotives in working order . . .	30 "
Maximum weight of tenders full of fuel and water . . .	20 "
Average weight of tenders full of fuel and water . . .	17 "
Maximum weight of passenger cars . . .	20 "
Average weight of passenger cars . . .	15.5 "
Average weight of mail and baggage cars . . .	12 "
Average weight of 8-wheel box freight cars . . .	8.5 "
Average weight of 8-wheel platform cars . . .	6.5 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender,	43 feet.
Total length of heaviest engine and tender over all . . .	53 "

Number of locomotives equipped with train-brake	7
[Kind of brake: Westinghouse.]	
Number of cars equipped with train-brake	27
[Kind of brake: Westinghouse.]	
Number of passenger cars with Miller platform and buffer	32
[Passenger, 22; mail and baggage, 10.]	
Are charges for the transportation of company's supplies included in the earnings as reported for your road? Yes.	
If so, state at what rates; the number of tons carried; and the amount credited to earnings.	
For wood	20 cents per car per mile.
coal, iron, steel and stone	1 cent per ton per mile.
other freight	2 cents per ton per mile.
Number of tons carried	10,518
Earnings	\$5,626 41
Number of spans of bridges, of 25 feet and upwards	5
Number of wooden bridges (aggregate length, 252 feet)	5
Number of crossings of highways at grade	9
Number of crossings at which gates or flagmen are maintained, ...	1
Number of crossings at which electric signals are maintained	1
Number of crossings at which there are neither electric signals, gates nor flagmen	7
Number of railroad crossings at grade:	1
Ware River.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	3.50 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	3.57 “
Average rate of fare per mile for season-ticket passengers*	.32 “
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	3.31 “
Average rate of local freight per ton per mile on roads operated by this company	7 “
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	1.42 “

CAPITAL STOCK.

Capital stock authorized by charter	\$2,250,000 00
Capital stock authorized by votes of company	2,153,000 00
Capital stock issued (number of shares, 21,533); amount paid in, ...	\$2,085,925 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	2,153,300 00
Total number of stockholders	673
Number of stockholders in Massachusetts	500
Amount of stock held in Massachusetts	\$1,792,000 00

DEBT.

Funded debt, as follows:—

Bonds due January 1, 1877, rate of interest 6 per cent	\$100 00
Bonds due July 1, 1880, rate of interest 6 per cent	580,900 00
Interest paid on same during year	\$34,704 00
Bonds due July 1, 1896, rate of interest 6 per cent	250,000 00
Interest paid on same during year	15,000 00
TOTAL AMOUNT OF FUNDED DEBT	\$831,000 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

CONNECTICUT RIVER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$627,052 06
Total expense (including taxes)	401,058 26
Net income	225,993 80
Rentals (specifying amount to each company):	13,922 38
Ashuelot Railroad Company	\$13,922 38
Dividends declared (eight per cent)	168,000 00
Balance for the year (surplus)	31,851 40
Balance at commencement of year	578,886 75
Add: entries made in Profit & Loss account during the year not included in the above statement:—	
Amount received on accounts which had been charged off as worthless	120 73
Balance at commencement of year as so changed	579,007 48
Balance September 30, 1879 (surplus)	610,858 88
ANALYSIS OF EARNINGS.	
From local passengers	\$185,279 50
through passengers (to and from other roads)	89,336 83
express	14,044 10
mails	11,429 15
<i>Total earnings from passenger department</i>	300,089 58
From local freight	86,588 54
through freight (to and from other roads)	226,632 88
<i>Total earnings from freight department</i>	313,221 42
TOTAL TRANSPORTATION EARNINGS	613,311 00
Income from all other sources	13,741 06
TOTAL INCOME FROM ALL SOURCES	627,052 06
ANALYSIS OF EXPENSES.	
Taxes	\$38,523 27
General salaries, office expenses and miscellaneous	20,075 96
Insurance	1,228 64
Telegraph expenses	483 64
Repairs of road	53,157 15
Steel rails	17,008 45
[Number of tons laid, 618.]	
New ties	10,020 03
[Number laid, 38,459.]	
Repairs of bridges	7,973 86
Repairs of buildings	10,307 11
Repairs of machine-shops and machinery	1,950 39
Repairs of fences, road crossings and signs	3,386 57
Removing ice and snow	2,132 18

Repairs of locomotives	\$15,787 75
New locomotives	6,750 00
Fuel, locomotive power	55,710 08
Water and water stations	1,089 65
Fuel for cars, stations, shops and stationary engines	839 11
Oil and waste	3,492 87
Switchmen, watchmen, flag and signal men	6,676 76
Repairs of passenger, mail and baggage cars	11,463 77
Damages and gratuities to passengers	81 75
Salaries, wages and incidentals of passenger trains	29,941 27
Salaries, wages and incidentals of passenger stations	24,948 20
Repairs of freight cars	12,192 21
Damages and gratuities, freight	1,171 86
Salaries, wages and incidentals of freight trains	26,810 43
Salaries, wages and incidentals of freight stations	33,134 74
Freight-car mileage (debit balances)	4,720 56
TOTAL EXPENSES	\$401,058 26

PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Land, land damages and fences	\$3,000 00

Balance Sheet September 30, 1879.

ASSETS.		
Construction account		\$2,396,037 63
Equipment account		241,938 89
Other permanent investments (<i>as follows</i>):		105,127 32
Lands in Bernardston	\$869 00	
Lands in Hinsdale, N.H.	200 00	
Lands in South Vernon	1,648 32	
Lands in Easthampton	2,800 00	
Stock of Vermont Valley Railroad Company of 1871	99,610 00	
Cash items (<i>as follows</i>):		264,871 91
Cash	\$98,612 60	
Bills receivable	73,028 00	
Due from agents and companies	93,231 31	
Other assets:		72,275 02
Materials and supplies	\$52,940 33	
Debit balances	19,334 69	
TOTAL ASSETS		\$3,080,250 77
LIABILITIES.		
Capital stock		\$2,100,000 00
Unfunded debt (<i>as follows</i>):		369,391 89
Dividends unpaid	\$1,793 00	
Notes payable	192,904 90	
Vouchers and accounts	174,693 99	
Profit & Loss balance		610,858 88
TOTAL LIABILITIES		\$3,080,250 77

Present or Contingent Liabilities not included in the Balance Sheet.

Interest guaranteed by this company on \$80,000 of the stock of the Vermont Valley Railroad Company of 1871.

MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	263,244 miles
Freight-train mileage	110,845 "
Switching-train mileage	22,561 "
Other train mileage	16,857 "
TOTAL TRAIN MILEAGE	413,507 "
Number of season-ticket passengers*	178,936
Number of local passengers (including season)	890,913
Number of through passengers	107,133
TOTAL NUMBER OF PASSENGERS	998,046
Local passenger mileage (local passengers carried one mile)	7,573,513
Through passenger mileage (through passengers carried one mile)	2,949,453
Number of tons local freight carried	77,781 tons.
Number of tons through freight carried	315,351 "
TOTAL NUMBER OF TONS FREIGHT CARRIED	393,132 "
Local freight mileage (tons local freight carried one mile)	1,082,164 "
Through freight mileage (tons through freight carried one mile), ...	7,850,952 "
Average weight of passenger trains (exclusive of passengers)	86 "
Average number of cars in passenger trains	3
Average weight of freight trains (exclusive of freight)	179 tons.
Average number of persons employed	334
DESCRIPTION OF ROAD.	
Length of main line of road from Springfield to South Vernon, ...	50 miles.
Length of main line of road in Massachusetts	50 "
Length of double track on main line	16.73 "
Same in Massachusetts	16.73 "
Branches owned by company:—	
Chicopee Falls (single track), length	2.35 "
Mt. Tom and Easthampton (single track), length	3.50 "
Total length of branches owned by company	5.85 "
Total length of branches owned by company in Massachusetts, ...	5.85 "
Total length of road belonging to this company	55.85 "
Aggregate length of sidings and other tracks not above enumerated	20.40 "
Same in Massachusetts	20.40 "
Aggregate length of track, computed as single track	92.98 "
Same in Massachusetts	92.98 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 56 pounds.]	63.46 "
<i>Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.</i>	
Name, description and length of each:—	
Ashuelot Railroad, length	24 miles.
Total length of above road in Massachusetts	400 feet.
Total length of above road in other States.†	
Total miles of road operated by this company	79.85 miles.
Total miles of road operated by this company in Massachusetts, ...	55.85 "
Number of stations in Massachusetts on all roads operated by this company	19
Number of telegraph offices in same	13
Number of stations on all roads owned by this company	19
Same in Massachusetts	19
EQUIPMENT.	
Number of locomotives	19
Number of passenger cars	33
Number of baggage, mail and express cars	5
Number of freight cars (basis of 8 wheels)	359
Number of other cars	2

* Reckoning twelve passengers per week for time of each season ticket.

† 3,748.8 feet in Vermont; remainder in New Hampshire.

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .	-	-	-	-	-	-	-	-
Employés .	-	-	1	4	1	4	1	4
Others .	-	-	5	-	5	-	6	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 25, 1878. — Mr. E. White of Springfield, while walking on the track about a quarter of a mile south of Chicopee, was struck and instantly killed by a passenger train going north.

April 14, 1879. — John Dumphrey, employed as brakeman, was killed while coupling cars in Greenfield yard.

April 17, 1879. — John O'Brien of Chicopee, walking on the track between Chicopee and Willimansett, stepped in front of a passenger train coming from the north, and was instantly killed.

April 25, 1879. — William Welch of Holyoke was killed by the 6.45 P.M. passenger train from Springfield. He was standing by the side of the track near the dam at Holyoke, and fell against the third car, which fractured his skull.

August 30, 1879. — Bridget Spillan of Holyoke, while walking on the track a few rods north of Holyoke passenger station, was struck by a passenger train coming south, receiving injuries from which she died.

September 23, 1879. — George Lamb of Gill was struck by a passenger train at first crossing above Bernardston, and received injuries from which he died in about twelve hours.

January 22, 1879. — John O'Brien, a brakeman, had his arm injured while coupling freight cars.

March 27, 1879. — George Heywood, a brakeman, had his arm broken while coupling freight cars.

August 26, 1879. — Charles D. Carroll, while coupling freight cars in Greenfield yard, had his arm broken so as to necessitate amputation between the elbow and shoulder.

September 12, 1879. — Stephen Bates, a brakeman, while coupling freight cars, received injuries so as to necessitate amputation of arm just above the wrist.

March 10, 1879. — Mr. Ham, employed by Cheshire Railroad Company in their repair shops, stepped in front of train on Ashuelot Railroad as it was backing to passenger station at Keene, and received injuries from which he died.

NAME AND RESIDENCE OF OFFICERS.

Chester W. Chapin, *President*, Springfield, Mass.; elected July 22, 1879, to fill vacancy occasioned by the death of D. L. Harris. John Mulligan, *Superintendent*, Springfield, Mass. H. E. Howard, *General Freight Agent*, Springfield, Mass. F. D. Heywood, *General Passenger Agent*, Holyoke, Mass.: office in Springfield. Seth Hunt, *Treasurer*, Northampton, Mass.: office in Springfield. Seth Hunt, *Clerk of Corporation*, Northampton, Mass.: office in Springfield.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

D. L. Harris, Springfield, Mass., died July 11, 1879. Chester W. Chapin, Springfield, Mass. I. M. Spelman, Boston, Mass. Edward A. Dana, Boston, Mass. Charles S. Sargent, Brookline, Mass. Roland Mather, Hartford, Conn. William B. Washburn, Greenfield, Mass. Oscar Edwards, Northampton, Mass. S. M. Waite, Brattleborough, Vt.

PROPER ADDRESS OF THE COMPANY.

CONNECTICUT RIVER RAILROAD COMPANY,
SPRINGFIELD, Mass.

C. W. CHAPIN,
I. M. SPELMAN,
CHARLES S. SARGENT,
OSCAR EDWARDS,
W. B. WASHBURN,

Directors.

SETH HUNT,

Treasurer.

J. MULLIGAN,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

HAMPDEN, SS. SPRINGFIELD, October 31, 1879. Then personally appeared C. W. Chapin, I. M. Spelman, Charles S. Sargent, Oscar Edwards, W. B. Washburn and John Mulligan, and severally made oath, and Seth Hunt made affirmation, to the truth of the foregoing statement by them subscribed.

ALBERT HOLT,

Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	54,000 lbs.
Average weight of locomotives in working order . . .	47,762 "
Maximum weight of tenders full of fuel and water . . .	44,960 "
Average weight of tenders full of fuel and water . . .	30,000 "
Maximum weight of passenger cars . . .	24 tons.
Average weight of passenger cars . . .	17 "
Average weight of mail and baggage cars . . .	13 "
Average weight of 8-wheel box freight cars . . .	8 "
Average weight of 8-wheel platform cars . . .	6.5 "
Average weight of 4-wheel platform cars . . .	2 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender,	38 feet 4 in.
Total length of heaviest engine and tender over all . . .	47 " 4 "
Number of locomotives equipped with train-brake . . .	17
[Kind of break: 12, Smith's vacuum; 1, Eames' vacuum; and 5, Westinghouse.]	
Number of cars equipped with train-brake . . .	37
[Kind of brake: 27, Smith's vacuum; and 10, Westinghouse.]	
Number of passenger cars with Miller platform and buffer . .	37
Are charges for the transportation of company's supplies included in the earnings as reported for your road? Yes.	
If so, state at what rates. One-fourth of fourth class.	

BRIDGES BUILT WITHIN THE YEAR IN MASSACHUSETTS.

LOCATION.	KIND.	MATERIAL.	LENGTH.	WHEN BUILT.
Hatfield . . .	Riveted lattice.	Iron.	51 Feet.	August, 1879.
Number of spans of bridges, of 25 feet and upwards . .				20
Number of iron bridges (aggregate length, 131 feet) . .				2
Number of wooden bridges (aggregate length, 2,723 feet) . .				9
Number of crossings of highways at grade . . .				54
Number of crossings of highways over railroad . . .				5
Number of crossings of highways under railroad . . .				8
Number of highway bridges 18 feet above track . . .				5
Number of highway bridges less than 18 feet above track . .				5
Number of crossings at which gates or flagmen are maintained,				3
Number of crossings at which there are neither electric signals,				
gates nor flagmen				51
Number of railroad crossings at grade (specifying each): . .				1
Vermont & Massachusetts Railroad, in Deerfield.				
RATES OF FARE, ETC.				
Average rate of fare per mile (not including season-tickets) for				
local passengers on roads operated by this company . .				2.91 cents.
Average rate of fare per mile <i>received</i> from passengers to and				
from other roads				3.03 "
Average rate of fare per mile for season-ticket passengers * . .				0.67 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . .				2.61 "
Average rate of local freight per ton per mile on roads operated				
by this company				8.01 "
Average rate of freight per ton per mile <i>received</i> from freight				
to and from other roads				3.06 "
CAPITAL STOCK.				
Capital stock authorized by charter				\$2,370,000 00
Capital stock authorized by votes of company				2,100,000 00
Capital stock issued (number of shares, 21,000); amount paid in,				\$2,100,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. . .				2,100,000 00
Total number of stockholders				841
Number of stockholders in Massachusetts				673
Amount of stock held in Massachusetts				\$1,651,900 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

DANVERS RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[NOTE. — This road is leased to and operated by the Boston & Maine Railroad. Its doings during the year, and its income and expenditures, are included in the report of that road, its business being so intimately connected that separate accounts have not been kept.]

Balance Sheet September 30, 1879.

ASSETS.	
Construction account	\$244,456 02
TOTAL ASSETS	\$244,456 02
LIABILITIES.	
Capital stock	\$67,500 00
Funded debt	150,000 00
Unfunded debt (<i>as follows</i>)	26,956 02
TOTAL LIABILITIES	\$244,456 02
DESCRIPTION OF ROAD.	
Length of main line of road from Wakefield Junction to Danvers	9.259 miles.
Length of main line of road in Massachusetts	9.259 "
Total length of road belonging to this company	9.259 "
Aggregate length of sidings and other tracks not above enumerated	.218 "
Aggregate length of track, computed as single track	9.477 "
Same in Massachusetts	9.477 "
Number of stations on all <i>roads owned</i> by this company	8
Same in Massachusetts	8

NAME AND RESIDENCE OF OFFICERS.

Nathaniel G. White, *President*, Lawrence, Mass. James T. Furbur, *Superintendent*, Lawrence, Mass. W. J. C. Kenney, *General Freight Agent*, Danvers, Mass. Amos Blanchard, *Treasurer*, Lowell, Mass. Chauncey P. Judd, *Clerk of Corporation*, Reading, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

N. G. White, Lawrence, Mass. George C. Lord, Newton, Mass. Amos Paul, South Newmarket, N.H. N. J. Bradley, Boston, Mass. William S. Stevens, Dover, N.H. J. R. Nichols, Haverhill, Mass. J. F. Osgood, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

DANVERS RAILROAD, BOSTON, MASS.

NATHANIEL G. WHITE,
 GEORGE C. LORD,
 NATHANIEL J. BRADLEE,
 AMOS PAUL,
 WILLIAM S. STEVENS,
 JAMES R. NICHOLS,

Directors.

A. BLANCHARD,

Treasurer.

JAS. F. FURBER,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 5, 1879. Then personally appeared Nathaniel G. White, George C. Lord, Nathaniel J. Bradlee, Amos Paul, William S. Stevens, James R. Nichols, A. Blanchard and James T. Furber, and severally made oath to the truth of the foregoing statement by them subscribed, according to their best knowledge and belief.

Before me,

C. P. JUDD,

Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	1
Number of wooden bridges (aggregate length, 141 feet) . . .	9
Number of crossings of highways at grade . . .	20
Number of crossings of highways over railroad . . .	1
Number of crossings of highways under railroad . . .	2
Number of highway bridges less than 18 feet above track . . .	1
Number of crossings at which gates or flagmen are maintained, . . .	6
Number of crossings at which there are neither electric signals, . . .	
gates nor flagmen . . .	14
Number of railroad crossings at grade (specifying each): . . .	2
Salem & Lowell Railroad at West Danvers.	
Essex Branch of Eastern Railroad at Danvers.	

CAPITAL STOCK.

Capital stock authorized by charter . . .	\$100,000 00	
Capital stock authorized by votes of company . . .	100,000 00	
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. . .		\$67,500 00
Total number of stockholders . . .	48	
Number of stockholders in Massachusetts . . .	46	
Amount of stock held in Massachusetts . . .	\$45,500 00	

DEBT.

Funded debt, as follows:—		
Bonds . . .		\$150,000 00
TOTAL AMOUNT OF FUNDED DEBT . . .		150,000 00

REPORT

OF THE

DORCHESTER & MILTON RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is substantially owned by the Old Colony Railroad Company, and the receipts, expenditures, etc., are included in the report of that road.]

Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$136,372 77
LIABILITIES.	
Capital stock	\$73,340 00
Unfunded debt (<i>as follows</i>):	\$58,448 07
Vouchers and accounts	58,448 07
Profit & Loss balance	4,584 70
TOTAL LIABILITIES	\$136,372 77
DESCRIPTION OF ROAD.	
Length of main line of road from Dorchester to Milton	3.30 miles.
Length of main line of road in Massachusetts	3.30 "
Total length of road belonging to this company	3.30 "
Aggregate length of sidings and other tracks not above enumerated	.45 "
Same in Massachusetts	.45 "
Aggregate length of track, computed as single track	3.75 "
Total miles of road operated by this company in Massachusetts, ...	3.30 "
Number of stations on all roads owned by this company	5
Same in Massachusetts	5

NAME AND RESIDENCE OF OFFICERS.

[Same as Old Colony Railroad Company.]

John M. Washburn, *Clerk of Corporation.*

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Charles F. Choate, Cambridge, Mass. Uriel Crocker, Boston, Mass. N. F. Safford, Milton, Mass. Royal W. Turner, Randolph, Mass. Francis B. Hayes, Boston, Mass. Samuel L. Crocker, Taunton, Mass. Ephraim N. Winslow, Hyannis, Mass.

PROPER ADDRESS OF THE COMPANY.

DORCHESTER & MILTON RAILROAD COMPANY,
BOSTON, MASS.

CHARLES F. CHOATE,
FRANCIS B. HAYES,
SAM'L L. CROCKER,
ROYAL W. TURNER,
URIEL CROCKER,

Directors.

JOHN M. WASHBURN,

Treasurer.

J. R. KENDRICK,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 3, 1879. Then personally appeared Charles F. Choate, Francis B. Hayes, Samuel L. Crocker, Royal W. Turner, Uriel Crocker, John M. Washburn and J. R. Kendrick, and severally made oath to the truth of the foregoing statement by them subscribed.

GEO. MARSTON,

Justice of the Peace.

GENERAL INFORMATION.

Number of wooden bridges (aggregate length, 320 feet) . . .	6
Number of crossings of highways at grade	4
Number of crossings of highways over railroad	2
Number of highway bridges less than 18 feet above track . . .	2
Number of crossings at which there are neither electric signals, gates nor flagmen	4

CAPITAL STOCK.

Capital stock authorized by charter	\$130,000 00	
Capital stock authorized by votes of company	73,300 00	
Capital stock issued (number of shares, 733); amount paid in . .		\$73,340 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.		73,340 00
Total number of stockholders	50	
Number of stockholders in Massachusetts	50	
Amount of stock held in Massachusetts	\$73,340 00	

REPORT OF THE EASTERN RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$2,485,977 90
Total expense (including taxes)	1,491,192 61
Net income	994,785 29
Rentals (specifying amount to each company):	293,996 52
Portland, Saco & Portsmouth Railroad, 6 per cent on \$1,500,000 capital stock	\$90,000 00
Portland, Saco & Portsmouth Railroad (notes and interest)	27,187 52
Portland, Saco & Portsmouth Railroad, rent anticipated July 1, 1879, which by contract would not have been entirely paid until July 1, 1881,	62,500 00
Portsmouth, Great Falls & Conway Railroad, 4½ per cent on \$1,000,000 bonds.	
Less 486,000 bonds owned by Eastern R.R.	
4½ per cent on \$514,000 bonds	23,130 00
Eastern Railroad (N.H.), per contract	22,500 00
Portsmouth & Dover Railroad (in dispute)	45,468 00
Newburyport City Railroad	6,000 00
Boston & Albany Railroad (in dispute)	7,800 00
Boston & Maine Railroad	6,500 00
Wolfborough Railroad	2,911 00
Interest accrued during year:	543,481 71
On funded debt	\$491,645 69
On other debt	51,836 02
Balance for the year (surplus)	157,307 06
Balance at commencement of year (deficit)	\$10,226,613 04
Add: entries made in Profit & Loss account during the year not included in the above statement:—	
To land damage settled during year.	\$3,612 83
Personal injury claims and judgments settled during year (prior to this year)	26,205 59
Sundry other claims settled during year	2,447 23
Interest prior to October, 1876; balance for year charged off	2,112 95
Bad accounts charged off	2,756 17
Reduction in value of lands	187,400 00
Reduction in value of equipment	106,300 00
TOTAL DEBITS	\$330,834 77
Deduct: old coupon account cancelled during year	\$280 00
Cash from sundry old accounts during year	23,360 60
Old dividends collected during year	402 00
Property sold (miscellaneous) during year	855 12

Old accounts cancelled during year	\$884 74	
Land account increased valuation during year (Lawrence)	10,000 00	
TOTAL CREDITS	\$35,782 46	
Balance at commencement of year as so changed		\$10,521,665 25
Balance September 30, 1879 (deficit)		<u>10,364,358 29</u>
ANALYSIS OF EARNINGS.		
From local passengers		\$1,191,998 21
through passengers (to and from other roads)		149,455 21
express and extra baggage		69,789 98
mails		40,553 50
other sources, passenger department		60 56
<i>Total earnings from passenger department</i>		<i>1,451,857 46</i>
From local freight		793,462 96
through freight (to and from other roads)		194,580 72
<i>Total earnings from freight department</i>		<i>988,043 68</i>
TOTAL TRANSPORTATION EARNINGS		2,439,901 14
Rents for use of road		8,700 35
Income from all other sources (specifying same):		37,376 41
Miscellaneous earnings	\$11,949 42	
Income from property	<u>25,426 99</u>	
TOTAL INCOME FROM ALL SOURCES		\$2,485,977 90
ANALYSIS OF EXPENSES.		
Taxes		\$39,749 81
General salaries, office expenses and miscellaneous		71,728 36
Insurance		3,509 54
Telegraph expenses		27,571 57
Repairs of road		153,608 19
Steel rails		39,233 83
[Number of tons laid, 1,609 ²⁷¹ / ₂₄₀ .]		
New ties		24,133 34
[Number laid, 85,537.]		
Repairs of bridges		34,683 06
Repairs of buildings		46,110 18
Repairs of machine-shops and machinery		19,533 53
Repairs of fences, road crossings and signs		9,655 71
Removing ice and snow		6 227 80
Repairs of snow ploughs		532 98
Repairs of locomotives		80,921 43
New locomotives		5,261 84
New snow ploughs		784 15
Fuel, locomotive power		184,579 28
Water and water stations		12,154 95
Fuel for cars, stations, shops and stationary engines		15,414 81
Oil and waste		9,382 02
Switchmen, watchmen, flag and signal men		92,819 63
Repairs of passenger, mail and baggage cars		41,604 45
New passenger, mail and baggage cars		16,508 42
Damages and gratuities to passengers		901 33
Salaries, wages and incidentals of passenger trains		139,450 49
Salaries, wages and incidentals of passenger stations		110,203 16
Passenger-car mileage (debit balances)		1,460 86
Repairs of freight cars		35,079 04
New freight cars		19,134 33
Damages and gratuities, freight		2,051 15
Salaries, wages and incidentals of freight trains		127,468 03
Salaries, wages and incidentals of freight stations		100,968 03
Freight-car mileage (debit balances)		<u>18,827 31</u>
TOTAL EXPENSES		\$1,491,192 61

PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.

Passenger, mail and baggage cars (number, 1)	\$1,500 00
Land in Lawrence, increased value	10,000 00
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS,	11,500 00
Property sold (or reduced in valuation on the books) and credited property accounts during the year (specifying same):	303,800 00
Locomotive engines, reduction in value	\$43,000 00
Snow plough, one sold	100 00
Passenger, baggage and mail cars, reduction in value	63,300 00
Lands in Charlestown, reduction in value	150,000 00
Lands in Revere, reduction in value	3,500 00
Lands in Lynn, reduction in value	41,500 00
Lands in Salem, reduction in value	2,000 00
Lands in Manchester, reduction in value	400 00

NET REDUCTION TO PROPERTY ACCOUNT FOR THE YEAR, 292,300 00

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$7,000,000 00
Equipment account	800,100 00
Other permanent investments (<i>as follows</i>):	1,306,410 00
Lands in Charlestown	\$600,000 00
Lands in East Boston	31,500 00
Lands in Revere	19,900 00
Lands in Malden	2,300 00
Lands in Lawrence	30,000 00
Lands in Manchester	3,250 00
Miscellaneous real estate	8,500 00
15,274 shares M. C. R.R. stock	610,960 00
5,513 shares P., G. F. & C. R.R. stock (uncertain value).	
3,379 shares Wolfborough R.R. stock (uncertain value).	
10 shares Eastern N. H. R.R. stock (uncertain value).	
P., G. F. and Conway R.R. bonds, nominal amount \$486,000 (uncertain value).	
Cash items (<i>as follows</i>):	396,372 63
Cash	\$144,197 39
Bills receivable	9,345 66
Due from agents and companies	242,829 58
Other assets (<i>as follows</i>):	186,278 12
Materials and supplies	\$180,534 58
Debit balances	5,743 54
Profit & Loss balance	10,364,358 29
TOTAL ASSETS	\$20,053,519 04

LIABILITIES.

Capital stock	\$4,997,600 00
Funded debt	13,589,237 76
Unfunded debt (<i>as follows</i>):	1,466,681 28
Interest unpaid	\$115,176 90

Dividends unpaid	\$15,817 00	
Notes payable and mortgage notes assumed	926,400 00	
Vouchers and accounts	409,287 38	
TOTAL LIABILITIES		\$20,053,519 04
<i>Present or Contingent Liabilities not included in the Balance Sheet.</i>		
Land damage, Swampscott Branch	\$2,600 00	
Claim for personal injury	13,000 00	
TOTAL (not included in Balance Sheet)		\$15,600 00
MILEAGE, TRAFFIC, ETC.		
Passenger-train mileage	1,028,719	
Freight-train mileage	495,946	
Switching-train mileage	468,307	
Other train mileage	74,350	
TOTAL TRAIN MILEAGE	2,067,322	
Number of season-ticket passengers*	1,283,311	
Number of local passengers (including season)	4,436,094	
Number of through passengers	98,654	
TOTAL NUMBER OF PASSENGERS	4,534,748	
Local passenger mileage (local passengers carried one mile)	56,269,186	
Through passenger mileage (through passengers carried one mile)	9,133,833	
Number of tons of local freight carried	706,729	
Number of tons through freight carried	142,983	
TOTAL NUMBER TONS FREIGHT CARRIED	849,712	
Local freight mileage (tons local freight carried one mile)	30,140,567	
Through freight mileage (tons through freight carried one mile)	14,855,527	
Average weight of passenger trains (exclusive of passengers)	135 $\frac{964}{2000}$ tons.	
Average number of cars in passenger trains	6	
Average weight of freight trains (exclusive of freight)	240 tons.	
Average number of cars in freight train	30	
Average number of persons employed	1,758	
DESCRIPTION OF ROAD.		
Length of main line of road from Boston to State line, New Hampshire	41.39 miles.	
Length of main line of road in Massachusetts	41.39 "	
Length of double track on main line	27.80 "	
Branches owned by company:—		
East Boston { double track, length 1.23 miles,	{ 3.31 "	
{ single track, length 2.08 "		
Charlestown, double track, length	1.086 "	
Saugus, single track, length	9.52 "	
Swampscott, single track, length	3.80 "	
Marblehead, single track, length	4 "	
Lawrence, { single track, length 17.66 miles,	{ 19.66 "	
{ double track, length 2 "		
South Reading, single track, length	8.12 "	
Gloucester, single track, length	17.38 "	
Essex, single track, length	5 "	
Asbury Grove, single track, length	1 "	
Salisbury single track, length	3.75 "	
Total length of branches owned by company	76.626 "	
Total length of branches owned by company in Massachusetts, ...	76.626 "	
Length of double track on branches	4.316 "	
Same in Massachusetts	4.316 "	
Total length of road belonging to this company	118.016 "	

* Reckoning twelve passengers per week for time of each season ticket.

Aggregate length of sidings and other tracks not above enumerated	43.813 miles.
Same in Massachusetts	43.813 "
Aggregate length of track, computed as single track	193.945 "
Same in Massachusetts	193.945 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 58 and 63 pounds.]	77.747 "

*Roads and Branches belonging to other Companies, operated by
this Company under Lease or Contract.*

Eastern (N.H.) Railroad	15.90 miles.
Portsmouth & Dover Railroad	10.88 "
Newburyport City Railroad	2.80 "
Portland, Saco & Portsmouth Railroad	51 "
Portsmouth, Great Falls & Conway Railroad	71.37 "
Wolfborough Railroad	12.03 "
Total length of above roads	163.98 "
Total length of above roads in Massachusetts	2.80 "
Total length of above roads in New Hampshire	107.63 "
Total length of above roads in Maine	53.55 "
Total miles of road operated by this company	281.996 "
Total miles of road operated by this company in Massachusetts, Number of stations in Massachusetts on all roads operated by this company	118.016 "
Number of telegraph offices in same	69
Number of stations on all roads owned by this company . . .	24
Same in Massachusetts	69

EQUIPMENT.

Number of locomotives, — leased, 19; owned, 75	94
Number of passenger cars owned	142
Number of baggage, mail and express cars, — leased, 2; owned, 35,	37
Number of freight cars (basis of 8 wheels), — leased, 230; owned, 1,135	1,365
Number of other cars owned, — 3 milk cars, 23 caboose cars .	26

LIST OF ACCIDENTS.

	FROM CAUSES BE- YOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	1	1	2	1	3	1	3
Employés	1	7	—	—	1	7	2	13
Others	—	—	5	7	5	7	7	9

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 28, 1878. — William Perkins, trespasser, walked between two freight cars of moving train at Railroad Wharf, Newburyport; received fatal injuries.

November 2. — John F. Page, trespasser (intoxicated), attempted to cross in front of moving train at Lynn; fatally injured.

November 22. — John W. Earle, employé, sprained wrist while coupling cars at Malden.

November 27. — John A. Barnes, employé, fell from freight car at Chelsea; slightly injured.

January 11, 1879. — Frank Omoro, trespasser, walking on track in Lynn; injury to knee.

February 6. — James Hodges, employé, coupling cars at Charlestown; finger amputated.

February 20. — Charles Tarr, passenger, fell in car as train was going into the station at Rockport; back injured.

March 7. — Alexander Leary, brakeman, fell from freight train in Lynn; leg broken.

March 22. — John Watson, trespasser, caught between freight car and bunter in Lawrence; leg broken.

March 27. — John O'Donnell jumped from a buggy at crossing in Everett; struck by engine after he had jumped; slightly bruised about the head.

April 11. — Howard Reeves, brakeman, coupling cars at Peabody; badly bruised.

April 19. — John Russell attempted to get on moving train in Danvers; broke his right leg; had left foot amputated.

April 28. — James Moore, trespasser, attempted to cross in front of moving train at Chelsea; received injuries about the head and back.

May 3. — George King, passenger, jumped from moving train at Swampscott; shoulder broken.

May 15. — Richard Farren, boy trespasser, struck by engine on bridge in Everett; killed instantly.

June 4. — James D. Crowley, trespasser, was found dead on the track in Newburyport depot after a train had left. He had stolen a ride from the Know-nothing crossing.

June 27. — John B. Goodwin, employé, jammed between freight cars at Newburyport; seriously injured.

July 17. — H. F. Fitzgerald, trespasser, was struck by engine while playing on track between Lynn Common and West Lynn; slight injury.

August 4. — E. G. Wadsworth, milkman, arm broken. His wagon was struck by engine at Arlington-street crossing, Chelsea.

August 4. — Frederick A. Hodgkins was in the same wagon as Wadsworth; received fatal injuries.

August 6. — Augustus Brown, passenger, jumped from train after it had started from Know-nothing crossing; fatally injured.

August 18. — John J. Harney jumped from picnic train at West Lynn; badly bruised.

September 15. — Patrick F. Hinchion, employé, fell from moving engine at Peabody; fatal injury.

September 26. — F. A. Johnson, employé, caught between rails at Somerville; badly jammed.

NAME AND RESIDENCE OF OFFICERS.

E. B. Phillips, *President*, Boston, Mass. John Hornby, *Master Transportation*, Boston, Mass. W. F. Berry, *General Freight Agent*, Boston, Mass. Lucius Tuttle, *General Passenger Agent*, Boston, Mass. N. G. Chapin, *Treasurer*, Brookline, Mass. Charles S. Sergeant, *Auditor*, Boston, Mass. Francis I. Amory, *Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

E. B. Phillips, Boston, Mass. A. P. Rockwell, Boston, Mass. George S. Morison, New York, N.Y. George P. King, Boston, Mass. John Cummings, Woburn, Mass. Samuel C. Lawrence, Medford, Mass. James W. Johnson, Enfield, N.H. George W. Gill, Worcester, Mass. Willard P. Phillips, Salem, Mass.

PROPER ADDRESS OF THE COMPANY.
EASTERN RAILROAD COMPANY, BOSTON, MASS.

E. B. PHILLIPS,
JOHN CUMMINGS,
J. W. JOHNSON,
SAMUEL C. LAWRENCE,
WILLARD P. PHILLIPS,
Directors.
N. G. CHAPIN,
Treasurer.
E. B. PHILLIPS,
President.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. BOSTON, November 10, 1879. Then personally appeared the above-named E. B. Phillips, John Cummings, J. W. Johnson, Samuel C. Lawrence and Willard P. Phillips, and severally made oath to the truth of the foregoing statement by them subscribed, according to their best knowledge and belief.

FRANCIS I. AMORY,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order (number, 94),	77,055 lbs.
Average weight of locomotives in working order	54,648 "
Maximum weight of tenders full of fuel and water	55,700 "
Average weight of tenders full of fuel and water	31,280 "
Maximum weight of passenger cars (number, 142)	40,000 "
Average weight of passenger cars	32,000 "
Average weight of mail and baggage cars (number, 37)	26,000 "
Average weight of 8-wheel box freight cars	15,500 "
Average weight of 4-wheel box freight cars } (number, 1,391) .	7,800 "
Average weight of 8-wheel platform cars	13,000 "
Average weight of 4-wheel platform cars	6,500 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	43½ feet.
Total length of heaviest engine and tender over all	54 "
Number of locomotives equipped with train-brake	56 "
[Kind of brake: Westinghouse.]	
Number of cars equipped with train-brake	181
[Kind of brake: Westinghouse.]	
Number of passenger cars with Miller platform and buffer . .	141
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities (specifying location of same):—	
From East Boston to Revere	3.31 miles.
From Peabody to Lawrence	19.66 "
From Peabody to Wakefield	8.12 "
From Wenham to Essex	5.5 "
From Portsmouth to Dover	10.88 "
Are charges for the transportation of company's supplies included in the earnings as reported for your road? No.	
Number of spans of bridges, of 25 feet and upwards	40
Number of iron bridges (aggregate length, 52 feet)	1
Number of iron-girder bridges (aggregate length, 469 feet) . .	12

Number of wooden bridges (aggregate length, 16,850 feet)	53
Number of crossings of highways at grade	181
Number of crossings of highways over railroad	46
Number of crossings of highways under railroad	12
Number of highway bridges 18 feet above track	3
Number of highway bridges less than 18 feet above track	43
Number of crossings at which gates or flagmen are maintained,	98
Number of crossings at which there are neither electric signals,	
gates nor flagmen	83
Number of railroad crossings at grade (specifying each):	6
Fitchburg Railroad, Charlestown.	
Boston & Maine Railroad, Charlestown.	
Boston & Lowell Railroad, Charlestown.	
Boston & Lowell Railroad, Lawrence branch, Salem.	
Boston & Maine Railroad, Georgetown branch, Danvers.	
Boston & Maine Railroad, Georgetown branch, Newburyport.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	2.674 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	1.636 "
Average rate of fare per mile for season-ticket passengers *	.949 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	2.051 "
Average rate of local freight per ton per mile on roads operated by this company	2.63 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	1.309 "

RELATING TO PASSENGERS.

Passengers to Boston (including season) *	1,577,311
Passengers from Boston (including season) *	1,382,683
Season-ticket passengers to and from Boston *	850,039

CAPITAL STOCK.

Capital stock authorized by charter	\$8,310,000 00
Capital stock authorized by votes of company	8,310,000 00
Capital stock issued (number of shares, 49,976); amount paid in,	\$4,997,600 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.	4,997,600 00
Total number of stockholders	2,684
Number of stockholders in Massachusetts	1,785
Amount of stock held in Massachusetts	\$4,065,400 00

DEBT.

Funded debt, as follows:—

Essex Railroad bonds, due September 15, 1886, rate of interest 6 per cent	\$180,200 00
Interest paid on same during year	\$10,812 00
Certificates of indebtedness	13,218,135 63
Interest paid and accrued on same during year,	473,649 86
Debt to be funded:	190,902 13
Ten-year coupon notes	9,000.00
Old bills audited	6,307 09
Notes payable	161,395 04
Essex Railroad bonds, due September 15, 1876,	14,200 00
Interest paid on same during year	\$852 00
TOTAL AMOUNT OF FUNDED DEBT	\$13,589,237 76

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

FALL RIVER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.

Total income	\$30,082 00
Total expense (including taxes)	22,775 18
Net income	7,306 82
Interest accrued during the year:	14,710 90
On funded debt	\$14,000 00
On other debt	710 90
Balance for the year (deficit)	7,404 08
Balance at commencement of year (deficit)	\$11,677 01
Add: entries made in Profit & Loss account during the year not included in the above statement.	
Balance of rent account due October 1, 1878 and paid in December, 1878	\$130 12
Balance at commencement of year as so changed	11,807 13
Balance September 30, 1879 (deficit)	19,211 21

ANALYSIS OF EARNINGS.

From local passengers	\$20,127 81
express and extra baggage	999 96
mails	641 24
<i>Total earnings from passenger department</i>	<i>21,769 01</i>
From local freight	7,854 66
<i>Total earnings from freight department</i>	<i>7,854 66</i>
TOTAL TRANSPORTATION EARNINGS	29,623 67
Rents for use of land	458 33
TOTAL INCOME FROM ALL SOURCES	30,082 00

ANALYSIS OF EXPENSES.

General salaries, office expenses and miscellaneous	\$2,362 43
Insurance	42 50
Repairs of road	4,661 32
Repairs of bridges	307 44
Repairs of fences, road crossings and signs	5 15
Switchmen, watchmen, flag and signal men	223 37
Salaries, wages and incidentals of passenger trains	8 474 33
Salaries, wages and incidentals of passenger stations	2,305 87
Damages and gratuities, freight	46 06
Salaries, wages and incidentals of freight trains	2,579 40
Salaries, wages and incidentals of freight stations	1,494 78
Freight-car mileage (debit balances)	141 12
TOTAL EXPENSES	\$22,775 18

PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.

Land, land damages and fences	\$3,321 97
---	------------

Balance Sheet September 30, 1879.

ASSETS.	
Construction account	\$445,663 69
Cash items (<i>as follows</i>):—	
Due from agents and companies	8,982 33
Other assets (<i>as follows</i>):—	
Debit balances	247 81
Profit & Loss balance	19,211 21
TOTAL ASSETS	\$474,105 04

LIABILITIES.	
Capital stock	\$200,000 00
Funded debt	200,000 00
Unfunded debt (<i>as follows</i>):	74,105 04
Interest unpaid	\$14,000 00
Notes payable	60,096 24
Vouchers and accounts	8 80
TOTAL LIABILITIES	\$474,105 04

Present or Contingent Liabilities not included in the Balance Sheet.

Land damages unsettled	\$8,500 00
City of Fall River, tax claimed	90 50
TOTAL (not included in Balance Sheet)	\$8,590 50

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	15,484 miles.
Freight-train mileage	15,484 "
Other train mileage (gravel train)	1,670 "
TOTAL TRAIN MILEAGE	32,638 "
Number of season-ticket passengers*	6,000
Number of local passengers (including season)	32,150
TOTAL NUMBER OF PASSENGERS	32,150
Local passenger mileage (local passengers carried one mile)	387,412
Number of tons of local freight carried, including coal	21,147
TOTAL NUMBER OF TONS FREIGHT CARRIED	21,147
Local freight mileage (tons local freight carried one mile)	255,020
Average weight of passenger trains (exclusive of passengers)	74 tons.
Average number of cars in passenger trains	2
Average weight of freight trains (exclusive of freight)	90 tons.
Average number of cars in freight train	7
Average number of persons employed	13

DESCRIPTION OF ROAD.

Length of main line of road from Fall River to New Bedford	12.25 miles.
Length of main line of road in Massachusetts	12.25 "
Total length of road belonging to this company	12.25 "
Aggregate length of sidings and other tracks not above enumerated	.673 "
Same in Massachusetts	.673 "
Aggregate length of track, computed as single track	12.923 "
Same in Massachusetts	12.923 "
Total miles of road operated by this company	12.25 "
Total miles of road operated by this company in Massachusetts, ...	12.25 "
Number of stations in Massachusetts on all roads operated by this company	6
Number of telegraph offices in same	2
Number of stations on all roads owned by this company	6
Same in Massachusetts	6

EQUIPMENT.

[Furnished by Old Colony Railroad.]

* Reckoning twelve passengers per week for time of each season ticket.

NAME AND RESIDENCE OF OFFICERS.

H. A. Blood, *President*, Fitchburg, Mass. J. E. Bliss, *General Freight and Passenger Agent*, Fall River, Mass. Morgan Rotch, *Treasurer*, New Bedford, Mass. William Rotch, *Clerk of Corporation*, New Bedford, Mass.

PROPER ADDRESS OF THE COMPANY.

FALL RIVER RAILROAD COMPANY, FALL RIVER, MASS.

H. A. BLOOD,
JOHN H. PERRY,
J. A. BEAUVAIS,
WM. ROTCH,
MORGAN ROTCH,
Directors.
MORGAN ROTCH,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

BRISTOL, ss. November 17, 1879. Then personally appeared the above-named H. A. Blood, John H. Perry, J. A. Beauvais, William Rotch and Morgan Rotch, directors, and Morgan Rotch, treasurer, and severally made oath to the truth of the foregoing statement by them subscribed, to the best of their knowledge and belief.

FRED'K C. S. BARTLETT,

Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	1
Number of wooden bridges (aggregate length, 5,887 feet) . . .	3
Number of crossings of highways at grade	10
Number of crossings of highways over railroad	1
Number of highway bridges 18 feet above track	1
Number of crossings at which there are neither electric signals, gates nor flagmen	10

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .	4.70 cents.
Average rate of fare per mile for season-ticket passengers * . .	.89 "
Average rate of fare per mile <i>received</i> from all passengers . .	4.70 "
Average rate of local freight per ton per mile on roads operated by this company	5.50 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	2.20 "

CAPITAL STOCK.

Capital stock authorized by charter	\$185,000 00	
Capital stock authorized by votes of company	200,000 00	
Capital stock issued (number of shares, 2,000); amount paid in, TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.		\$200,000 00
Total number of stockholders	17	200,000 00
Number of stockholders in Massachusetts	16	
Amount of stock held in Massachusetts	\$199,800 00	

DEBT.

Funded debt, as follows:—

First mortgage bonds, due April, 1895, rate of interest 7 per cent, TOTAL AMOUNT OF FUNDED DEBT	\$200,000 00
	200,000 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

FALL RIVER, WARREN & PROVIDENCE RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$24,086 95
Total expense (including taxes)	16,417 35
Net income	7,669 60
Interest paid during year	7,669 70
Deficit at commencement of year	\$138,963 44
Deficit September 30, 1879	138,963 44
ANALYSIS OF EARNINGS.	
From local passengers	315 92
through passengers (to and from other roads)	15,828 06
express and extra baggage	1,500 00
mails	452 68
<i>Total earnings from passenger department</i>	18,096 66
From through freight (to and from other roads)	5,935 62
<i>Total earnings from freight department</i>	5,935 62
TOTAL TRANSPORTATION EARNINGS	24,032 28
Income from all other sources (specifying same):	54 67
Rent of tenement.	
TOTAL INCOME FROM ALL SOURCES	\$24,086 95
ANALYSIS OF EXPENSES.	
Taxes	\$162 96
General salaries, office expenses and miscellaneous	59 72
Repairs of road	1,393 05
New ties	825 00
[Number laid, 2,750.]	
Repairs of bridges	638 56
Repairs of buildings	16 87
Repairs of fences, road crossings and signs	391 20
Use of locomotives	1,704 60
Fuel, locomotive power	1,704 60
Switchmen, watchmen, flag and signal men	994 25
Salaries, wages and incidentals of passenger trains	3,571 74
Salaries, wages and incidentals of passenger stations	209 28
Passenger-car mileage (debit balances)	2,758 28
Salaries, wages and incidentals of freight trains	1,134 70
Salaries, wages and incidentals of freight stations	25 00
Freight-car mileage (debit balances)	827 54
TOTAL EXPENSES	\$16,417 35

Balance Sheet September 30, 1879.

ASSETS.		
Construction account		\$310,747 60
Cash items (<i>as follows</i>):		3,418 76
Due from agents and companies	\$3,418 76	
Profit & Loss balance		138,963 44
TOTAL ASSETS		\$453,129 80
LIABILITIES.		
Capital stock		\$150,000 00
Funded debt		300,000 00
Unfunded debt (<i>as follows</i>):		3,129 80
Vouchers and accounts	\$3,129 80	
TOTAL LIABILITIES		\$453,129 80
MILEAGE, TRAFFIC, ETC.		
Passenger-train mileage		15,650 miles.
Freight-train mileage		3,965 "
TOTAL TRAIN MILEAGE		19,615 "
Number of local passengers (including season)		1,950
Number of through passengers		91,017
TOTAL NUMBER OF PASSENGERS		92,967
Local passenger mileage (local passengers carried one mile)		6,574
Through passenger mileage (through passengers carried one mile)		519,169
Number of tons through freight carried		23,894
TOTAL NUMBER OF TONS FREIGHT CARRIED		23,894
Through freight mileage (tons through freight carried one mile), ...		214,417
Average weight of passenger trains (exclusive of passengers)		90 tons.
Average number of cars in passenger trains		3
Average number of persons employed		14
DESCRIPTION OF ROAD.		
Length of main line of road from Fall River, Mass., to Warren, R.I.		5.794 miles.
Length of main line of road in Massachusetts		3.662 "
Length of main line of road in Rhode Island		2.132 "
Total length of road belonging to this company		5.794 "
Aggregate length of sidings and other tracks not above enumerated		.520 "
Same in Massachusetts		.040 "
Aggregate length of track, computed as single track		6.314 "
Same in Massachusetts		3.702 "
Total miles of road operated by this company		5.794 "
Total miles of road operated by this company in Massachusetts, ...		3.662 "
Number of stations in Massachusetts on all roads operated by this company		2
Number of telegraph offices in same		1
Number of stations on all roads owned by this company		3
Same in Massachusetts		2
EQUIPMENT.		
[Furnished by the Old Colony Railroad.]		

NAME AND RESIDENCE OF OFFICERS.

Charles F. Choate, *President*, Cambridge, Mass. James R. Kendrick, *Superintendent*, Boston, Mass. John M. Washburn, *Treasurer*, Boston, Mass. John S. Brayton, *Clerk of Corporation*, Fall River, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Charles F. Choate, Cambridge, Mass. Ephraim N. Winslow, Hyannis, Mass.
 Elisha W. Willard, Newport, R.I. John S. Brayton, Fall River, Mass. Thomas
 Borden, Fall River, Mass. Royal W. Turner, Randolph, Mass.

PROPER ADDRESS OF THE COMPANY.

FALL RIVER, WARREN & PROVIDENCE RAILROAD COMPANY,
 BOSTON, MASS.

CHARLES F. CHOATE,
 E. W. WILLARD,
 ROYAL W. TURNER,
 JOHN S. BRAYTON,
 THOS. J. BORDEN,
Directors.
 JOHN M. WASHBURN,
Treasurer.
 J. R. KENDRICK,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 3, 1879. Then personally appeared Charles F. Choate, E. W. Willard, Royal W. Turner, John S. Brayton, Thomas J. Borden, John M. Washburn and J. R. Kendrick, and severally made oath to the truth of the foregoing statement by them subscribed.

GEO. MARSTON,
Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	3
Number of wooden bridges (aggregate length, 315 feet) . . .	3
Number of crossings of highways at grade	3
Number of crossings of highways over railroad	2
Number of highway bridges less than 18 feet above track . . .	2
Number of crossings at which there are neither electric signals, gates nor flagmen	3

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .	4.8 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	3.0 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . . .	3.0 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	2.76 "

CAPITAL STOCK.

Capital stock authorized by charter	\$150,000 00
Capital stock authorized by votes of company	150,000 00
Capital stock issued (number of shares, 1,500); amount paid in, TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. . .	\$150,000 00 150,000 00
Total number of stockholders	29

Number of stockholders in Massachusetts	12	
Amount of stock held in Massachusetts	\$77,000	00
DEBT.		
Funded debt, as follows:—		
First mortgage bonds, due April 17, 1883, rate of interest 7		
per cent		\$300,000 00
Interest paid on same during year	\$7,669	60
TOTAL AMOUNT OF FUNDED DEBT		300,000 00

REPORT

OF THE

FITCHBURG RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$2,079,973 52
Total expense (including taxes)	1,458,515 39
Net income	621,458 13
Rentals (specifying amount to each company):	242,256 00
Vermont & Massachusetts Railroad	\$238,506 00
Connecticut River Railroad	3,750 00
Interest accrued during the year:	99,462 08
On funded debt	\$65,000 00
On other debt	34,462 08
Dividends declared (6 per cent)	270,000 00
Balance for the year (surplus)	9,740 05
Balance at commencement of year	\$494,435 36
Deduct:—	
Amount of old claims settled	10,700 00
Balance at commencement of year as so changed	483,735 36
Balance September 30, 1879 (surplus)	493,475 41
ANALYSIS OF EARNINGS.	
From local passengers	\$488,334 64
through passengers (to and from other roads)	174,955 20
express and extra baggage	30,400 22
mails	23,561 19
other sources, passenger department	71 73
<i>Total earnings from passenger department</i>	717,322 98
From local freight	489,196 66
through freight (to and from other roads)	716,757 10
<i>Total earnings from freight department</i>	1,205,953 76
TOTAL TRANSPORTATION EARNINGS	1,923,276 74
Rents for use of road	99,500 00
Income from all other sources (specifying same):	57,196 78
Rent of property	\$17,784 61
Elevators, warehouses, wharves, discharging coal, etc.	39,412 17
TOTAL INCOME FROM ALL SOURCES	2,079,973 52
ANALYSIS OF EXPENSES.	
Taxes	\$101,414 27
General salaries, office expenses and miscellaneous	51,675 68
Insurance	2,102 98
Telegraph expenses	8,577 06

Repairs of road	\$135,987 07
Iron rails	8,909 74
Steel rails	32,868 09
New ties	27,451 32
Repairs of bridges	24,120 75
Repairs of buildings	53,871 68
Repairs of machine-shops and machinery	10,856 03
Repairs of fences, road crossings and signs	8,414 11
Removing ice and snow	6,670 92
Repairs of locomotives	87,997 24
Fuel, locomotive power	194,902 01
Water and water stations	8,222 36
Fuel for cars, stations, shops and stationary engines	7,722 47
Oil and waste	19,999 61
Switchmen, watchmen, flag and signal men	48,947 84
Repairs of passenger, mail and baggage cars	30,561 67
Damages and gratuities to passengers	2,282 00
Salaries, wages and incidentals of passenger trains	98,040 87
Salaries, wages and incidentals of passenger stations	63,009 68
Repairs of freight cars	90,337 73
Damages and gratuities, freight	2,267 23
Salaries, wages and incidentals of freight trains	159,863 74
Salaries, wages and incidentals of freight stations	131,545 14
Freight-car mileage (debit balances)	39,836 10
TOTAL EXPENSES	\$1,458,515 39
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Superstructure, including rails	\$24,595 79
Passenger and freight stations, wood-sheds and water stations	48,520 39
TOTAL FOR CONSTRUCTION	73,116 18
Locomotives (number, 8)	54,300 00
Passenger, mail and baggage cars (number, 5)	20,000 00
Freight and other cars (number, 312)	168,567 23
TOTAL FOR EQUIPMENT	242,867 23
Other expenditures charged to property account (specifying same):	74,043 45
Improvements: Vermont & Mass. Railroad	\$60,478 17
Real estate	13,565 28
NET ADDITION TO PROPERTY ACCOUNT FOR THE YEAR	390,026 86
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$4,211,099 00
Equipment account	1,169,928 43
Other permanent investments (<i>as follows</i>):	1,005,331 65
Lands in Boston and on line of F. R.R. and branches: not used for business purposes, ...	\$305,835 09
Improvements: Vermont & Mass. Railroad	699,496 56
Cash items (<i>as follows</i>):	293,618 33
Cash	\$279,767 95
Bills receivable	11,099 00
Due from agents and companies	2,751 38
Other assets (<i>as follows</i>):	530,472 76
Materials and supplies	\$364,178 62
Sinking fund	155,025 00
Debit balances	11,269 14
TOTAL ASSETS	7,210,450 17

LIABILITIES.	
Capital stock	\$4,500,000 00
Funded debt	1,000,000 00
Unfunded debt (<i>as follows</i>):	1,216,974 76
Interest unpaid	\$32 850 00
Dividends unpaid	9,049 50
Notes payable	810,000 00
Vouchers and accounts	365,075 26
Profit & Loss balance	493,475 41
TOTAL LIABILITIES	\$7,210,450 00
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	679,680 miles.
Freight-train mileage	867,373 "
Switching-train mileage	184,634 "
Other train mileage	31,568 "
TOTAL TRAIN MILEAGE	1,763,255 "
Number of season-ticket passengers *	518,756
Number of local passengers (including season)	2,075,170
Number of through passengers	151,835
TOTAL NUMBER OF PASSENGERS	2,227,005
Local passenger mileage (local passengers carried one mile)	26,661,857
Through passenger mileage (through passengers carried one mile)	8,432,288
Number of tons of local freight carried	410,143
Number of tons through freight carried	903,146
TOTAL NUMBER OF TONS FREIGHT CARRIED	1,313,289
Local freight mileage (tons local freight carried one mile)	10,389,786
Through freight mileage (tons through freight carried one mile), ...	82,412,854
Average weight of passenger trains (exclusive of passengers)	123 tons.
Average number of cars in passenger trains	4.5
Average rate of freight trains (exclusive of freight)	250 tons.
Average number of cars in freight train	24
Average number of persons employed	1,374
DESCRIPTION OF ROAD.	
Length of main line of road from Boston to Fitchburg	50 miles.
Length of main line of road in Massachusetts	50 "
Length of double track on main line	50 "
Same in Massachusetts	50 "
Branches owned by company:—	
Freight and ice in Boston (double track), length	.68 "
Watertown Branch (single track)	6.60 "
Lancaster & Sterling & Marlborough (single track) length	12.42 "
Peterborough & Shirley (single track)	23.62 "
Total length of branches owned by company	43.32 "
Total length of branches owned by company in Massachusetts, ...	33.95 "
Total length of branches owned by company in N. Hampshire, ...	9.37 "
Length of double track on branches	.68 "
Same in Massachusetts	.68 "
Total length of road belonging to this company	93.32 "
Aggregate length of sidings and other tracks not above enumerated	49.77 "
Same in Massachusetts	48.4 "
Aggregate length of track, computed as single track	193.77 "
Same in Massachusetts	183.03 "
Total length of steel rails in tracks, not including steel-top rails, ...	42.4 "
[Weights per yard, 60 pounds.]	
Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.	
Name, description and length of each:—	
Vermont & Massachusetts, Fitchburg to Greenfield, length	56 miles.
Turner's Falls Branch, Deerfield to Turner's Falls, length	2.80 "

* Reckoning twelve passengers per week for time of each season ticket.

Troy & Greenfield R.R. & Hoosac Tunnel, Greenfield to North Adams, length		37 miles.
Total length of above roads		95.80 "
Total length of above roads in Massachusetts		95.80 "
Total miles of road operated by this company		189.12 "
Total miles of road operated by this company in Massachusetts, ...		179.75 "
Number of stations in Massachusetts on all roads operated by this company		74
Number of telegraph offices in same		40
Number of stations on all roads owned by this company		48
Same in Massachusetts		45
EQUIPMENT.		
Number of locomotives leased, 10; owned, 67		77
Number of passenger cars leased, 17; owned, 65		82
Number of baggage, mail and express cars leased, 6; owned, 19, ...		25
Number of freight cars (basis of 8 wheels) leased, 273; owned, 1,543		1,816
Number of other cars owned, 97		97

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	-	-	3	3	3	3	3	3
Employés	-	-	T. & G. 2	10	T. & G. 2	10	T. & G. 2	10
Others	-	-	2	11	2	11	2	11

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 3, 1878. — George Lyntbwaite attempted to get upon a train in motion at Waltham, and was slightly injured.

October 29. — John Briggs, employé, coupling cars at Union Square, was caught between the bunters and slightly injured.

December 11. — Philip Crimmins, walking on track near Concord Junction, was struck by engine and fatally injured.

December 28. — William E. Baker, passenger, standing in baggage car, had a leg broken by door of baggage car blowing against him between Ashburnham and Gardner.

January 15, 1879. — Loring W. Homer, boy, coasting at Belmont, ran in front of an engine, and was fatally injured.

January 29. — George Day, walking on track between Charlestown and Union Square, was struck by an engine and slightly injured.

January 29. — Patrick Fitzgerald, employé, coupling cars at Boston; hand slightly injured.

February 1. — Frank Hinsman, employé, changing switch between Charlestown and Union Square; hand slightly injured by switch crank.

March 1. — Loring Carman, crossing track between Shirley and Ayer Junction, struck by engine and killed.

March 7. — George J. Moore, employé, fell from top of a car at Boston, and broke his wrist.

April 7. — Elizabeth Haggerty, crossing track at Concord Junction, was struck by engine and slightly injured.

April 10. — B. F. Butler jumped from passenger train in motion at Greenfield, and was slightly injured.

April 11. — Frank M. Phillips, employé, coupling engine and car at Charlestown; foot slightly injured.

April 18. — R. H. Beach, employé, fell from top of a car in Hoosac Tunnel, and was fatally injured.

April 28. — Willie Horr, young child playing beside track at Erving, struck by passenger train, and fatally injured.

May 8. — Howard Snelling, driving across track at Lincoln, was struck by express passenger train and killed.

May 18. — John Maguire, employé, fell from top of car at Boston, and was fatally injured.

May 21. — Henry C. Parker, employé, struck by bridge near Wendell, and slightly injured.

May 27. — Charles H. Gurney, employé, attempted to get upon a car in motion at Charlestown, and fell; his leg and foot were crushed.

May 28. — John H. O'Neil, employé, coupling cars at Ayer Junction; hand injured.

May 30. — Michael Finn, employé, struck by engine between Montague and Greenfield, and fatally injured.

June 19. — William Vearney, employé, struck by bridge near Gardner; slightly injured.

June 27. — W. M. Mudge attempted to get upon a moving train at Ayer Junction, and fell; foot badly crushed. Intoxicated.

July 3. — Esther Williams, in getting off a passenger train at Boston, fell and broke her wrist.

July 4. — Thomas Nolan attempted to get upon a moving train at Concord Junction; ankle bruised.

July 22. — Warren E. Babb, employé, fell from tender at South Acton; head bruised and fingers broken.

August 8. — James Barrett, employé, attempted to get upon a moving train at Gardner, and was fatally injured.

August 17. — Mary Leonard, walking on the track at Athol, was struck by an engine and slightly injured.

August 28. — Rose Zergo ran against the side of a passing engine at Lake Walden, and was killed.

September 2. — Harry Eagan, boy, attempted to cross the track in front of a train at Somerville; was struck by the engine and fatally injured.

September 30. — Patrick Culnant, employé of Troy & Greenfield Railroad, was struck by an engine in Hoosac Tunnel and fatally injured.

NAME AND RESIDENCE OF OFFICERS.

William B. Stearns, *President*, Boston, Mass. John Adams, *General Superintendent*, Boston, Mass. E. K. Turner, *Assistant Superintendent*, Fitchburg, Mass. C. L. Hartwell, *General Freight Agent*, Waltham, Mass. C. C. Daggett, *General Ticket Agent*, Somerville, Mass. M. D. Benson, *Treasurer*, Cambridge, Mass. Thomas Whittemore, *Clerk of Corporation*, Cambridge, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William B. Stearns, Boston, Mass. Seth Bemis, Newton, Mass. Robert Codman, Boston, Mass. Rodney Wallace, Fitchburg, Mass. C. U. Cotting, Brookline, Mass.

PROPER ADDRESS OF THE COMPANY.

FITCHBURG RAILROAD COMPANY, BOSTON, MASS.

WILLIAM B. STEARNS,
SETH BEMIS,
ROBERT CODMAN,
CHAS. U. COTTING,
Directors.
M. D. BENSON,
Treasurer.
JOHN ADAMS,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, SS. BOSTON, November 15, 1879. Then personally appeared Messrs. William B. Stearns, Seth Bemis and Robert Codman, and severally made oath to the truth of the foregoing statement by them subscribed, to the best of their knowledge and belief.

CHAS. U. COTTING,
Justice of the Peace.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, SS. BOSTON, November 15, 1879. Then personally appeared Mr. C. U. Cotting, and made oath to the truth of the foregoing statement by him subscribed, to the best of his knowledge and belief.

ROBERT CODMAN,
Justice of the Peace.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, SS. Then personally appeared John Adams and Mason D. Benson, and severally made oath to the truth of the foregoing statement by them subscribed, to the best of their knowledge and belief.

W. B. STEARNS,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	41 tons.
Average weight of locomotives in working order . . .	31 "
Maximum weight of tenders full of fuel and water . . .	25 "
Average weight of tenders full of fuel and water . . .	20 "
Maximum weight of passenger cars . . .	20 "
Average weight of passenger cars . . .	18 "
Average weight of mail and baggage cars . . .	12 "
Average weight of 8-wheel box freight cars . . .	8½ "
Average weight of 4-wheel box freight cars . . .	4½ "

Average weight of 8-wheel platform cars	7½ tons.
Average weight of 4-wheel platform cars	3¾ “
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender,	43½ feet.
Total length of heaviest engine and tender over all	53 ft. 8 in.
Number of locomotives equipped with train-brake	41
[Kind of brake: Westinghouse.]	
Number of cars equipped with train-brake	112
[Kind of brake: Westinghouse.]	
Number of passenger cars with Miller platform and buffer . .	82
Number of spans of bridges, of 25 feet and upwards	39
Number of iron bridges (aggregate length, 226 feet)	3
Number of wooden bridges (aggregate length, 10,610 feet) . .	52
Number of crossings of highways at grade	130
Number of crossings of highways over railroad	20
Number of crossings of highways under railroads	9
Number of highway bridges less than 18 feet above track . .	20
Number of crossings at which gates or flagmen are maintained,	50
Number of crossings at which there are neither electric signals, gates nor flagmen	80
Number of railroad crossings at grade (specifying each): . .	7
Boston & Maine.	
Eastern.	
Grand Junction.	
Framingham & Lowell.	
Worcester & Nashua.	
Peterborough & Shirley Road.	
Boston, Clinton, Fitchburg & New Bedford.	
Number of railroad crossings under other railroads (specifying each):	1
Boston & Lowell.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	2.07cents
Average rate of fare per mile <i>received</i> from passengers to and from other roads	2.07 “
Average rate of fare per mile for season-ticket passengers * . .	0.92 “
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . .	1.9 “
Average rate of local freight per ton per mile on roads operated by this company	4.71 “
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	0.87 “

RELATING TO PASSENGERS.

Passengers to Boston (including season) *	798,701
Passengers from Boston (including season) *	817,556
Season-ticket passengers to and from Boston *	406,326

CAPITAL STOCK.

Capital stock authorized by charter	\$8,000,000 00
Capital stock authorized by votes of company	8,000,000 00
Capital stock issued (number of shares, 45,000); amount paid in, ...	\$4,500,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. . . .	
Total number of stockholders	2,653
Number of stockholders in Massachusetts	2,239
Amount of stock held in Massachusetts	\$3,909,000 00

DEBT.

Funded debt, as follows:—	
Bonds due April 1, 1894, rate of interest 7 per cent	\$500,000 00
Interest paid on same during year	\$35,000 00
Bonds due October 1, 1897, rate of interest 6 per cent . . .	500,000 00
Interest paid on same during year	\$30,000 00
TOTAL AMOUNT OF FUNDED DEBT	1,000,000 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

FRAMINGHAM & LOWELL RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to the Boston, Clinton, Fitchburg & New Bedford, and operated by the Old Colony Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$22,868 64
Total expense (including taxes)	352 41
Net income	22,516 23
Interest accrued during year:	55,159 17
On funded debt \$55,000 00	
On other debt 159 17	
Balance for the year (deficit)	32,642 94
Balance at commencement of year (deficit)	215,679 86
Balance September 30, 1879 (deficit)	248,322 80
ANALYSIS OF EARNINGS.	
Rents for use of road	\$22,868 64
TOTAL INCOME FROM ALL SOURCES	22,868 64
ANALYSIS OF EXPENSES.	
Taxes	\$290 11
General salaries, office expenses and miscellaneous	62 30
TOTAL EXPENSES	\$352 41
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$1,227,386 56
Equipment account	182,062 00
Debit balances	186 69
Profit & Loss balance	248,322 80
TOTAL ASSETS	\$1,657,958 05
LIABILITIES.	
Capital stock	\$512,096 39
Funded debt	750,000 00
Unfunded debt (<i>as follows</i>):	395,861 66
Interest unpaid \$79,100 00	
Notes payable 244,500 00	
Vouchers and accounts 72,261 66	
TOTAL LIABILITIES	\$1,657,958 05

[This report is made up as the books of the corporation show; but the liability of the Framingham & Lowell Railroad Company, in regard to the items of \$250,000 of coupon notes classed in the funded debt, and a portion of \$395,861.66 classed in the unfunded debt, is denied.]

DESCRIPTION OF ROAD.

Length of main line of road from Framingham to Lowell	26.12 miles.
Length of main line of road in Massachusetts	26.12 “
Total length of road belonging to this company	26.12 “
Aggregate length of sidings and other tracks not above enumerated	4.958 “
Same in Massachusetts	4.958 “
Aggregate length of track, computed as single track	31.078 “
Same in Massachusetts	31.078 “
Number of stations on all <i>roads owned</i> by this company	12
Same in Massachusetts	12

NAME AND RESIDENCE OF OFFICERS.

S. N. Aldrich, *President*, Marlborough, Mass. E. D. Hewins, *Treasurer and Clerk of Corporation*, Fitchburg, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

S. N. Aldrich, Marlborough, Mass. Jacob Nichols, Lowell, Mass. S. B. Rogers, Sudbury, Mass. D. E. Harding, Mansfield, Mass. John Fletcher, Jr., Acton, Mass. James W. Clark, Framingham, Mass. Edward Hastings, West Medford, Mass. J. R. Kendrick, Boston, Mass. E. D. Hewins, Fitchburg, Mass.

PROPER ADDRESS OF THE COMPANY.

FRAMINGHAM & LOWELL RAILROAD COMPANY,
FITCHBURG, MASS.

JAMES W. CLARK,
J. R. KENDRICK,
JOHN FLETCHER, JR.,
EDWARD HASTINGS,
E. D. HEWINS,
Directors.
E. D. HEWINS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 22, 1879. Then personally appeared James W. Clark, J. R. Kendrick, John Fletcher, Jr., and Edward Hastings, and severally made oath to the truth of the foregoing statement by them subscribed, according to the best of their knowledge and belief.

E. D. HEWINS,
Justice of the Peace .

SUFFOLK, ss. November 22, 1879. Then personally appeared E. D. Hewins, and made oath to the truth of the foregoing statement by him subscribed.

H. A. BLOOD,

Justice of the Peace.

GENERAL INFORMATION.	
Number of wooden bridges	16
Number of crossings of highways at grade	37
Number of crossings of highways over railroad	1
Number of crossings of highways under railroad	1
Number of highway bridges 18 feet above track	1
Number of crossings at which gates or flagmen are maintained, ...	2
Number of crossings at which there are neither electric signals, ...	35
gates nor flagmen	1
Number of railroad crossings at grade (specifying each):	
Fitchburg Railroad at Concord.	
CAPITAL STOCK.	
Capital stock authorized by charter	\$1,500,000 00
Capital stock authorized by votes of company \$550,000 00	
Capital stock issued (number of shares, 5,110); amount paid in, ...	511,000 00
Capital stock paid in on shares not issued (number of shares, 18), ...	1,096 39
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	512,096 39
Total number of stockholders	224
Number of stockholders in Massachusetts	219
Amount of stock held in Massachusetts \$504,900 00	
DEBT.	
Funded debt, as follows:—	
First mortgage bonds, due April 1, 1891, rate of interest 7 per cent	\$500,000 00
Interest paid on same during year \$17,500 00	
Coupon notes, due April 1, 1882, rate of interest 8 per cent	150,000 00
Coupon notes, due February 1, 1883, rate of interest 8 per cent, ...	100,000 00
TOTAL AMOUNT OF FUNDED DEBT	\$750,000 00

REPORT OF THE GRAFTON CENTRE RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[A Narrow-gauge Road.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$4,694 09
Total expense (including taxes)	3,485 24
Net income	1,208 85
Interest paid during year	583 00
Balance for the year (surplus)	625 85
Balance at commencement of year	734 82
Balance September 30, 1879 (surplus)	1,360 67
ANALYSIS OF EARNINGS.	
From local passengers	\$2,646 75
express and extra baggage	452 85
mails	360 00
other sources (freight carried)	1,234 49
TOTAL INCOME FROM ALL SOURCES	\$4,694 09
ANALYSIS OF EXPENSES.	
General salaries, office expenses and miscellaneous	\$753 11
Repairs of road	652 15
Fuel, locomotive power	580 90
Oil and waste	46 72
Repairs of passenger, mail and baggage cars	230 48
Salaries, wages and incidentals of trains	1,221 88
TOTAL EXPENSES	\$3,485 24
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Land, land damages and fences	\$21 82
Passenger and freight stations, wood-sheds and water stations	137 00
TOTAL FOR CONSTRUCTION	158 82
Freight and other cars	88 57
TOTAL FOR EQUIPMENT	88 57
TOTAL ADDITION TO PROPERTY ACCOUNT FOR THE YEAR, ...	247 39
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$39,245 98
Equipment account	4,275 33
Cash	513 65
Other assets (<i>as follows</i>):	196 96
Materials and supplies	\$54 67
Debit balances	142 29
TOTAL ASSETS	\$44,231 92

LIABILITIES.	
Capital stock	\$29,830 00
Funded debt	10,000 00
Unfunded debt (<i>as follows</i>):	3,041 25
Notes payable	\$3,000 00
Vouchers and accounts	41 25
Profit & Loss balance	1,360 67
TOTAL LIABILITIES	\$44,231 92
MILEAGE, TRAFFIC, ETC.	
TOTAL TRAIN MILEAGE	14,085 miles.
TOTAL NUMBER OF PASSENGERS	21,318
Local passenger mileage (local passengers carried one mile)	63,954
TOTAL NUMBER OF TONS FREIGHT CARRIED	2,206
Local freight mileage (tons local freight carried one mile)	6,618
DESCRIPTION OF ROAD.	
Length of main line of road from Grafton Centre to Boston & Albany Railroad	3 miles.
Length of main line of road in Massachusetts	3 "
Total length of road belonging to this company	3 "
Total miles of road operated by this company	3 "
Total miles of road operated by this company in Massachusetts, Number of stations in Massachusetts on all <i>roads operated</i> by this company	1
Number of stations on all <i>roads owned</i> by this company	1
Same in Massachusetts	1
EQUIPMENT.	
Dummy engine and car	1
Number of baggage, mail and express cars	1

NAME AND RESIDENCE OF OFFICERS.

Jonathan D. Wheeler, *President*. E. P. Capron, *Superintendent*. Henry F. Wing, *Treasurer*. A. A. Ballou, *Clerk of Corporation*.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Jonathan D. Wheeler, Winthrop Faulkner, George K. Nichols, George F. Slocomb, Franklin Baldwin, Silas A. Forbush, John B. White, Alden M. Bigelow, Joseph A. Dodge and Daniel N. Gibbs, all of Grafton.

PROPER ADDRESS OF THE COMPANY.

GRAFTON CENTRE RAILROAD COMPANY,
GRAFTON, MASS.

JONA. D. WHEELER, ·
WINTHROP FAULKNER,
GEO. K. NICHOLS,
S. A. FORBUSH,
J. B. WHITE,
JOSEPH A. DODGE, ·
DANIEL N. GIBBS,
ALDEN M. BIGELOW,
Directors.
HENRY F. WING,
Treasurer.
EDMUND P. CAPRON,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, SS. GRAFTON, November 8, 1879. Then personally appeared Jonathan D. Wheeler, Winthrop Faulkner, George K. Nichols, J. B. White, Joseph A. Dodge, Alden M. Bigelow, Henry F. Wing and Edmund P. Capron, and severally made oath to the truth of the foregoing statement by them subscribed.

Before me,

ALPHONSO A. BALLOU,

Justice of the Peace.

GENERAL INFORMATION.	
Number of crossings of highways at grade	6
Number of crossings at which there are neither electric signals, gates nor flagmen	6
RATES OF FARE. ETC.	
Average rate of fare per mile for local passengers on roads operated by this company	6.5 cents.
Average rate of local freight per ton per mile on roads operated by this company	1.8
CAPITAL STOCK.	
Capital stock authorized by charter	\$30,000 00
Capital stock authorized by votes of company	30,000 00
Capital stock issued (number of shares, 298); amount paid in	\$29,800 00
Capital stock paid in on shares not issued (number of shares, 2), ...	30 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.	29,830 00
Total number of stockholders	56
Number of stockholders in Massachusetts	56
Amount of stock held in Massachusetts	\$29,830 00
DEBT.	
Funded debt, as follows:—	
First mortgage bonds, due May 1, 1885, rate of interest 7 per cent	\$10,000 00
Interest paid on same during year	\$583 00

REPORT

OF THE

HANOVER BRANCH RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.

Total income	\$27,877 67
Total expense (including taxes)	14,962 37
Net income	12,915 30
Interest accrued during the year:	1,650 00
On funded debt	\$1,650 00
Dividends declared (3 per cent)	3,714 00
Balance for the year (surplus)	7,551 30
Balance at commencement of year (surplus)	99,496 07
Balance September 30, 1879 (surplus)	107,047 37

ANALYSIS OF EARNINGS.

From local passengers	\$4,683 28
through passengers (to and from other roads)	8,102 15
express and extra baggage	3,900 88
mails	150 00
other sources passenger department	580 87
<i>Total earnings from passenger department</i>	17,417 18
From local freight	4,078 68
through freight (to and from other roads)	6,381 81
<i>Total earnings from freight department</i>	10,460 49
TOTAL TRANSPORTATION EARNINGS	27,877 67
 TOTAL INCOME FROM ALL SOURCES	 \$27,877 67

ANALYSIS OF EXPENSES.

Taxes	\$513 69
General salaries, office expenses and miscellaneous	1,170 91
Insurance	542 97
Repairs of road	2,324 68
New ties	884 52
[Number laid, 3,052.]	
Repairs of bridges	26 87
Repairs of buildings	349 12
Repairs of locomotives	1,130 17
Fuel for cars, stations, shops and stationary engines	311 53
Oil and waste	219 67
Repairs of passenger, mail and baggage cars	265 93
Salaries, wages and incidentals of passenger trains	2,338 26
Salaries, wages and incidentals of passenger stations	1,150 58
Repairs of freight cars	234 64
Salaries, wages and incidentals of freight trains	2,338 24
Salaries, wages and incidentals of freight stations	1,150 25
 TOTAL EXPENSES	 \$14,962 37

Balance Sheet September 30, 1879.

ASSETS.	
Construction account	\$194,826 66
Equipment account	60,562 69
Cash	5,749 02
TOTAL ASSETS	\$261,138 37
LIABILITIES.	
Capital stock	\$123,950 00
Funded debt	30,000 00
Dividends unpaid	141 00
Profit & Loss balance	107,047 37
TOTAL LIABILITIES	\$261,138 37
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	22,840 miles.
TOTAL TRAIN MILEAGE	22,840 "
Number of season-ticket passengers *	8,740
Number of local passengers (including season)	20,690
Number of through passengers	53,270
TOTAL NUMBER OF PASSENGERS	73,960
Local passenger mileage (local passengers carried one mile)	82,760
Through passenger mileage (through passengers carried one mile), ...	213,080
Number of tons of local freight carried	4,216
Number of tons of through freight carried	13,044
TOTAL NUMBER OF TONS FREIGHT CARRIED†.	17,260
Local freight mileage (tons local freight carried one mile)	16,860
Through freight mileage (tons through freight carried one mile), ...	52,176
Average weight of passenger trains (exclusive of passengers)	69 tons.
Average number of cars in passenger trains	2
Average weight of freight trains (exclusive of freight)	60 tons.
Average number of cars in freight train	4
Average number of persons employed	22
DESCRIPTION OF ROAD.	
Length of main line of road from Hanover to N. Abington	8 miles.
Length of main line of road in Massachusetts	8 "
Total length of road belonging to this company	8 "
Aggregate length of sidings and other tracks not above enumerated	1 mile.
Same in Massachusetts	1 "
Aggregate length of track, computed as single track	9 miles.
Same in Massachusetts	9 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 50 lbs.]	1½ "
Total miles of road operated by this company	8 "
Total miles of road operated by this company in Massachusetts, ...	8 "
Number of stations in Massachusetts on all roads operated by this company	4 "
Number of telegraph offices in same	1
Number of stations on all roads owned by this company	4
Same in Massachusetts	4
EQUIPMENT.	
Number of locomotives	2
Number of passenger cars	4
Number of baggage, mail and express cars	2
Number of freight cars (basis of 8 wheels)	18

* Reckoning *twelve passengers* per week for time of each season ticket.

† Carried on passenger trains.

NAME AND RESIDENCE OF OFFICERS.

Edward Y. Perry, *President*, S. Hanover, Mass. Edward Y. Perry, *Superintendent*, S. Hanover, Mass. Albert Culver, *Treasurer*, Rockland, Mass. Calvin T. Phillips, *Clerk of Corporation*, S. Hanover, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

E. Y. Perry, S. Hanover, Mass. R. J. Lane, Rockland, Mass. Washington Reed, Rockland, Mass. E. Q. Sylvester, Hanover, Mass. Lemuel C. Waterman, Hanover, Mass.

PROPER ADDRESS OF THE COMPANY.

HANOVER BRANCH RAILROAD COMPANY,
SOUTH HANOVER, MASS.

EDWARD Y. PERRY,
WASHINGTON REED,
RICHMOND J. LANE,
Directors.
ALBERT CULVER,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

PLYMOUTH, SS. ROCKLAND, November 13, 1879. Then personally appeared Edward Y. Perry, Richmond J. Lane, Washington Reed and Albert Culver, and severally made oath to the truth of the foregoing statement by them subscribed.

ZENAS JENKINS,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order	28 tons.
Average weight of locomotives in working order	24 "
Maximum weight of tenders full of fuel and water	15 "
Average weight of tenders full of fuel and water	12 "
Maximum weight of passenger cars	16 "
Average weight of passenger cars	15 "
Average weight of mail and baggage cars	12 "
Average weight of 8-wheel box freight cars	8 "
Average weight of 8-wheel platform cars	7 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	38 feet.
Total length of heaviest engine and tender over all	48 "
Number of cars equipped with train-brake	5
[Kind of brake: Westinghouse.]	
Number of passenger cars with Miller platform and buffer .	5
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities (specifying location of same):—	
From Rockland to Hanover, number of miles	6½ miles.
Number of crossings of highways at grade	18
Number of crossings at which there are neither electric signals, gates nor flagmen	18

RATES OF FARE, ETC.		
Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .		3.5 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads		2.7 “
Average rate of fare per mile for season-ticket passengers* . .		1.26 “
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . .		2.1 “
Average rate of local freight per ton per mile on roads operated by this company		4.3 “
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads		4.1 “
CAPITAL STOCK.		
Capital stock authorized by charter	\$160,000 00	
Capital stock authorized by votes of company	160,000 00	
Capital stock issued (number of shares, 1,238); amount paid in, ...		\$123,800 00
Capital stock paid in on shares not issued (number of shares, 6), ...		150 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.		123,950 00
Total number of stockholders	108	
Number of stockholders in Massachusetts	107	
Amount of stock held in Massachusetts	\$123,700 00	
DEBT.		
Funded debt, as follows:—		
One mortgage, rate of interest 6 per cent		\$30,000 00
Interest paid on same during year	\$1,650 00	

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

HOLYOKE & WESTFIELD RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the New Haven & Northampton Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$17,807 92
Total expense (including taxes)	428 45
Net income	17,379 47
Interest accrued during year:	15,800 00
On funded debt \$15,800 00	
Balance for the year (surplus)	1,579 47
Balance at commencement of year 3,607 63	
Less allowed New Haven & Northampton Railroad Company drawbacks, as per note on 1878 report, 295 93	
Balance at commencement of year as so changed	3,311 70
Balance September 30, 1879 (surplus)	4,891 17
ANALYSIS OF EARNINGS.	
Rents for use of road	\$17,809 92
ANALYSIS OF EXPENSES.	
General salaries, office expenses and miscellaneous	\$428 45
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	522,268 89
Cash items (<i>as follows</i>):	2,622 28
Cash \$614 36	
Due from agents and companies 2,007 92	
TOTAL ASSETS	\$524,891 17
LIABILITIES.	
Capital stock	\$260,000 00
Funded debt	260,000 00
Profit & Loss balance	4,891 17
TOTAL LIABILITIES	\$524,891 17
DESCRIPTION OF ROAD.	
Length of main line of road from Holyoke to Westfield	10.32 miles.
Length of main line of road in Massachusetts	10.32 "
Total length of road belonging to this company	10.32 "
Aggregate length of sidings and other tracks not above enumerated	6.900 "
Same in Massachusetts	6.900 "

Aggregate length of track, computed as single track . . .	17.220 miles.
Same in Massachussts	17.220 “
Number of stations on all roads owned by this company . . .	2
Same in Massachusetts	2

NAME AND RESIDENCE OF OFFICERS.

Joseph C. Parsons, *President*, Holyoke, Mass. William Whiting, *Vice President*, Holyoke, Mass. George W. Prentiss, *Treasurer*, Holyoke, Mass. Joseph P. Buckland, *Clerk of Corporation*, Holyoke, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Joseph C. Parsons, Holyoke, Mass. William Whiting, Holyoke, Mass. Timothy Merrick, Holyoke, Mass. John Delaney, Holyoke, Mass. M. J. Tehan, Holyoke, Mass. Aug. Stursberg, Holyoke, Mass. Roswell P. Crafts, Holyoke, Mass. George W. Prentiss, Holyoke, Mass. Maurice Lynch, Holyoke, Mass.

PROPER ADDRESS OF THE COMPANY.

HOLYOKE & WESTFIELD RAILROAD COMPANY,
HOLYOKE, MASS.

WILLIAM WHITING,
JOHN DELANEY,
J. C. PARSONS,
R. P. CRAFTS,
GEO. W. PRENTISS,
Directors.
GEO. W. PRENTISS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

HAMPDEN, SS. October 31, 1879. Then personally appeared William Whiting, John Delaney, J. C. Parsons, R. P. Crafts and George W. Prentiss, and severally made oath to the truth of the foregoing statement by them subscribed.

E. W. CHAPIN,
Justice of the Peace.

GENERAL INFORMATION.

Number of crossings of highways at grade	5
Number of crossings of highways over railroad	3
Number of crossings of highways under railroad	9
Number of highway bridges 18 feet above track	3
Number of crossings at which there are neither electric signals, gates nor flagmen	5

CAPITAL STOCK.

Capital stock authorized by charter	\$350,000 00
Capital stock authorized by votes of company	260,000 00
Capital stock issued (number of shares, 2,600); amount paid in,	\$260,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.	260,000 00

Total number of stockholders	15
Number of stockholders in Massachusetts	14
Amount of stock held in Massachusetts	\$240,000 00

DEBT.

Funded debt, as follows:—

First mortgage bonds, due April 1, 1891, rate of interest 7 per cent, ...	\$200,000 00
Interest paid on same during year	\$14,000 00
Second mortgage bonds, due April 1, 1898, rate of interest 6 per cent	60,000 00
Interest paid on same during year	\$1,800 00
TOTAL AMOUNT OF FUNDED DEBT	520,000 00

REPORT OF THE HOPKINTON RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Providence & Worcester Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$7,500 00
Net income	7,500 00
Interest accrued during year:	8,228 00
On funded debt	\$7,500 00
On other debt	728 00
Balance for the year (deficit)	728 00
Balance at commencement of year (deficit)	914 06
Balance September 30, 1879 (deficit)	1,642 06
ANALYSIS OF EARNINGS.	
Rents for use of road	\$7,500 00
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$292,526 10
Cash items (<i>as follows</i>):	11,925 00
Cash due from stockholders	\$8,700 00
Coupon note	100 00
Due from agents and companies	3,125 00
Profit & Loss balance	1,642 06
TOTAL ASSETS	\$306,093 16
LIABILITIES.	
Capital stock	\$165,100 00
Funded debt	125,400 00
Unfunded debt (<i>as follows</i>):	15,593 16
Interest unpaid	\$13,551 00
Notes payable	2,042 16
TOTAL LIABILITIES	\$306,093 16
DESCRIPTION OF ROAD.	
Length of main line of road from Milford to Ashland	11.45 miles.
Length of main line of road in Massachusetts	11.55 "
Aggregate length of sidings and other tracks not above enumerated	.140 "

Same in Massachusetts	.140 miles.
Aggregate length of track, computed as single track	11.590 "
Same in Massachusetts	11.590 "
Number of stations on all <i>roads owned</i> by this company	4
Same in Massachusetts	4

NAME AND RESIDENCE OF OFFICERS.

Erastus Thompson, *President*, Hopkinton, Mass. Martin V. Phipps, *Treasurer*, Hopkinton, Mass. C. W. Claflin, *Clerk of Corporation*, Hopkinton, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Erastus Thompson, Hopkinton, Mass. J. A. Woodbury, Hopkinton, Mass. C. W. Claflin, Hopkinton, Mass. M. C. Phipps, Hopkinton, Mass. W. F. Claflin, Hopkinton, Mass. William A. Phipps, Hopkinton, Mass. W. B. Claflin, Hopkinton, Mass. C. Meserve, Hopkinton, Mass. George Draper, Milford, Mass.

PROPER ADDRESS OF THE COMPANY.

HOPKINTON RAILROAD COMPANY, HOPKINTON, MASS.

ERASTUS THOMPSON,
J. A. WOODBURY,
C. W. CLAFLIN,
W. F. CLAFLIN,
WM. B. CLAFLIN,
C. MESERVE,
M. C. PHIPPS,
Directors.
M. V. PHIPPS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, SS. HOPKINTON, November 4, 1879. Then personally appeared Erastus Thompson, J. A. Woodbury, C. W. Claflin, W. F. Claflin, William B. Claflin, M. C. Phipps and C. Meserve, and severally made oath to the truth of the foregoing statement by them subscribed.

LUCIUS H. WAKEFIELD,

Justice of the Peace.

GENERAL INFORMATION.

Number of crossings of highways at grade	15
Number of crossings of highways over railroad	1
Number of highway bridges 18 feet above track	1
Number of crossings at which gates or flagmen are maintained, ...	2
Number of crossings at which there are neither electric signals, gates nor flagmen	13

CAPITAL STOCK.		
Capital stock authorized by charter . . .	\$400,000 00	
Capital stock authorized by votes of company . .	165,100 00	
Capital stock issued (number of shares, 1,441); amount paid in,		\$144,100 00
Capital stock paid in on shares not issued . . .		12,300 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. .		156,400 00
Total number of stockholders	66	
Number of stockholders in Massachusetts	66	
Amount of stock held in Massachusetts	\$156,400 00	
DEBT.		
Funded debt, as follows: —		
Mortgage bonds, due 1882, rate of interest 7 per cent . .		\$115,000 00
Interest paid on same during year	\$7,500 00	
Certificates of indebtedness		10,400 00
TOTAL AMOUNT OF FUNDED DEBT		\$125,400 00

REPORT

OF THE

HORN POND BRANCH RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston & Lowell Railroad Company. It is merely the track of an Ice Company, and used only for the transportation of its ice.]

Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$15,238 46
LIABILITIES.	
Capital stock	\$2,000 00
Profit & Loss balance	13,238 46
TOTAL LIABILITIES	\$15,238 46
DESCRIPTION OF ROAD.	
Length of main line of road from Woburn Branch Horn Pond,	.663 miles.
Total length of road belonging to this company	.663 "
Aggregate length of sidings and other tracks not above enumerated	.076 "
Same in Massachusetts	.076 "
Aggregate length of track, computed as single track	.739 "
Same in Massachusetts	.739 "

NAME AND RESIDENCE OF OFFICERS.

Horace O. Bright, *President*, Cambridgeport, Mass. John J. Bright, *Treasurer*, Cambridgeport, Mass. William H. Preston, *Clerk of Corporation*, Somerville, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Horace O. Bright, Cambridgeport, Mass. Charles O. Gage, Arlington, Mass. Nelson Bartlett, Boston, Mass. William P. Draper, unknown. Francis Hall, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

HORN POND BRANCH RAILROAD COMPANY,
No. 76 STATE STREET, BOSTON, MASS.

HORACE O. BRIGHT,
NELSON BARTLETT,
FRANCIS HALL,
Directors.
JOHN J. BRIGHT,
Treasurer

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. BOSTON, November 20, 1879. Then personally appeared Horace O. Bright, Nelson Bartlett and Francis Hall, Directors, and severally made oath to the truth of the foregoing statement by them subscribed.

CHAS. DARROW,
Justice of the Peace.

GENERAL INFORMATION.		
Number of wooden bridges (aggregate length, 20 feet) . .		1
Number of crossings of highways at grade		1
Number of crossings of highways over railroad		1
Number of highway bridges less than 18 feet above track . .		1
Number of crossings at which there are neither electric signals, gates nor flagmen		1
CAPITAL STOCK.		
Capital stock authorized by charter	\$40,000 00	
Capital stock authorized by votes of company	10,000 00	
Capital stock issued (number of shares, 100); amount paid in .		\$2,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. .		2,000 00
Total number of stockholders	9	
Number of stockholders in Massachusetts	9	
Amount of stock held in Massachusetts	\$2,000 00	

REPORT

OF THE

LANCASTER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is only partially constructed.]

Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$230,448 48
TOTAL ASSETS	\$230,448 48
LIABILITIES.	
Capital stock	\$124,920 00
Funded debt	47,000 00
Notes payable	58,528 48
TOTAL LIABILITIES	\$230,448 48

NAME AND RESIDENCE OF OFFICERS.

George A. Parker, *President*, Lancaster, Mass. S. R. Merrick, *Treasurer and Clerk of Corporation*, Lancaster, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

George A. Parker, Lancaster, Mass. C. H. Waters, Groton, Mass. George W. Howe, Lancaster, Mass. F. D. Brigham, Hudson, Mass. S. R. Merrick, Lancaster, Mass. Amory Maynard, Maynard, Mass. S. H. Howe, Bolton, Mass. F. W. Warren, Stow, Mass. Joseph Healy, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

LANCASTER RAILROAD COMPANY, LANCASTER, MASS.

S. R. MERRICK,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, SS. October 24, 1879. Then personally appeared S. R. Merrick, Treasurer of the Lancaster Railroad Company, and made oath to the truth of the foregoing statement by him subscribed.

JONATHAN SMITH,
Justice of the Peace.

CAPITAL STOCK.		
Capital stock authorized by charter	\$500,000 00	
Capital stock authorized by votes of company . .	125,000 00	
Capital stock issued (number of shares, 1,249); amount paid in,		\$124,900 00
Capital stock paid in on shares not issued (number of shares, 2),		20 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. .		124,920 00
Total number of stockholders	38	
Number of stockholders in Massachusetts	35	
Amount of stock held in Massachusetts	\$122,300 00	
DEBT.		
Funded debt, as follows:—		
Bonds due 1922, rate of interest 6 per cent		\$47,000 00

REPORT

OF THE

LEE & HUDSON RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is only partially constructed.]

Balance Sheet September 30, 1879.	
ASSETS.	
Construction account, cost of road	\$249,521 76
Cash	4 23
TOTAL ASSETS	\$249,525 99
LIABILITIES.	
Capital stock	\$235,284 99
Funded debt	12,633 50
Unfunded debt	1,607 50
TOTAL LIABILITIES	\$249,525 99

PROPER ADDRESS OF THE COMPANY.

LEE & HUDSON RAILROAD COMPANY, LEE, MASS.

S. S. ROGERS,
J. C. CHAFFEE,
PRENTISS C. BAIRD,
C. C. BENTON,
WELLINGTON SMITH,
DEWITT S. SMITH,
Directors.
PRENTISS C. BAIRD,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

BERKSHIRE, ss. November 10, 1879. Then personally appeared S. S. Rogers, J. C. Chaffee, Prentiss C. Baird, C. C. Benton, Wellington Smith and DeWitt S. Smith, and severally made oath to the truth of the foregoing statement by them subscribed.

E. T. SLOCUM,
Justice of the Peace.

CAPITAL STOCK.		
Capital stock authorized by charter . . .	\$500,000 00	
Capital stock authorized by votes of company . .	275,000 00	
Capital stock issued (number of shares, 1,705); amount paid in,		\$170,500 00
Capital stock paid in on shares not issued . . .		64,784 99
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. .		235,284 99
Total number of stockholders	34	
Number of stockholders in Massachusetts	30	
Amount of stock held in Massachusetts	\$212,391 33	
DEBT.		
Funded debt, as follows:—		
First mortgage bond, due July 1, 1876, rate of interest 7 per cent,		\$11,000 00
Second mortgage bond, due on demand, rate of interest 7 per cent		1,633 50
TOTAL AMOUNT OF FUNDED DEBT		\$12,633 50

REPORT

OF THE

LEE & NEW HAVEN RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is only partially constructed.]

ASSETS.						
Cost of road:	.	.	.	.	.	\$111,496 05
Grading and masonry	.	.	.	.	\$96,361 02	
Land, land damages and fences	.	.	.	.	12,000 00	
Interest, discount, etc.	.	.	.	.	3,135 03	
LIABILITIES.						
Capital stock paid in:	.	.	.	.	.	\$86,923 72
Authorized by charter	.	.	.	.	\$500,000 00	
Authorized by vote of company	.	.	.	.	375,000 00	
Paid in on not issued	.	.	.	.	86,923 72	
Unfunded debt	.	.	.	.	.	24,572 33
TOTAL LIABILITIES	.	.	.	.	.	\$111,496 05

PROPER ADDRESS OF THE COMPANY.

LEE & NEW HAVEN RAILROAD COMPANY,

PRENTISS C. BAIRD, TREASURER,

LEE, MASS.

REPORT

OF THE

LOWELL & ANDOVER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston & Maine Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$52,504 20
Total expense (including taxes)	173 29
Net income	52,330 91
Interest accrued during year:	11,472 15
On funded debt	\$11,400 00
On other debt	72 15
Dividends declared (7 per cent)	35,000 00
Balance for the year (surplus)	5,858 76
Balance at commencement of year (surplus)	60,006 19
Balance September 30, 1879 (surplus)	65,864 95
ANALYSIS OF EARNINGS.	
Rents for use of road	\$52,500 00
Interest	4 20
TOTAL INCOME FROM ALL SOURCES	52,504 20
ANALYSIS OF EXPENSES.	
Taxes	\$17 53
General salaries, office expenses and miscellaneous	155 76
TOTAL EXPENSES	\$173 79
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Land, land damages and fences	\$160 00
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$754,769 49
Cash	1,095 46
TOTAL ASSETS	\$755,864 95
LIABILITIES.	
Capital stock	\$500,000 00
Funded debt	190,000 00
Profit & Loss balance	65,864 95
TOTAL LIABILITIES	\$755,864 95
DESCRIPTION OF ROAD.	
Length of main line of road from Lowell to Ballardvale Junct.	8.73 miles.
Length of main line of road in Massachusetts	8.73 "

Branches owned by company:—

To Framingham & Lowell Railroad (single track), length . . .	1.15 miles.
To Boston & Lowell Railroad (single track), length . . .	.22 “
Total length of branches owned by company . . .	1.37 “
Total length of branches owned by company in Massachusetts . . .	1.37 “
Total length of road belonging to this company . . .	10.10 “
Aggregate length of sidings and other tracks not above enumerated . . .	2.48 “
Same in Massachusetts . . .	2.48 “
Aggregate length of track, computed as single track . . .	12.58 “
Same in Massachusetts . . .	12.58 “
Number of stations on all roads owned by this company . . .	3
Same in Massachusetts . . .	3

NAME AND RESIDENCE OF OFFICERS.

Frederick Ayer, *President*, Lowell, Mass. Benjamin Walker, *Treasurer and Clerk of Corporation*, Lowell, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Frederick Ayer, Lowell, Mass. Arthur P. Bonney, Lowell, Mass. Horace J. Adams, Lowell, Mass. Frederick F. Ayer, Lowell, Mass. Josiah Gates, Lowell, Mass. Jacob Nichols, Lowell, Mass. E. M. Sargent, Lowell, Mass. Benjamin Walker, Lowell, Mass. Gustavus V. Fox, Boston, Mass. George Ripley, Andover, Mass.

PROPER ADDRESS OF THE COMPANY.

LOWELL AND ANDOVER RAILROAD COMPANY,
LOWELL, MASS.

FREDERICK AYER,
JOSIAH GATES,
JACOB NICHOLS,
A. P. BONNEY,
H. J. ADAMS,
E. M. SARGENT,
BENJ. WALKER,
Directors.
BENJ. WALKER,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, SS. LOWELL, MASS., October 16, 1879. Then personally appeared Frederick Ayer, Josiah Gates, Jacob Nichols, A. P. Bonney, H. J. Adams, E. M. Sargent and Benjamin Walker, being a majority of the Directors of the Lowell and Andover Railroad Company, and severally made oath to the truth of the foregoing statement by them subscribed.

JAMES L. HOVEY,
Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	6
Number of wooden bridges (aggregate length, 1,677 feet) . . .	9
Number of crossings of highways at grade	11
Number of crossings of highways over railroad	2
Number of highway bridges 18 feet above track	2
Number of crossings at which gates or flagmen are maintained, ...	6
Number of crossings at which there are neither electric signals, gates nor flagmen	5

CAPITAL STOCK.

Capital stock authorized by votes of company	\$500,000 00	
Capital stock issued (number of shares, 5,000); amount paid in, ...		\$500,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.		500,000 00
Total number of stockholders	148	
Number of stockholders in Massachusetts	137	
Amount of stock held in Massachusetts	\$460,800 00	

DEBT.

Funded debt, as follows:—

Bonds due July 1, 1894, rate of interest 6 per cent	\$190,000 00
Interest paid on same during year	\$11,400 00

REPORT
OF THE
MARTHA'S VINEYARD RAILROAD COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.
[A Narrow-gauge Road.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$4,918 64
Total expense (including taxes)	4,749 97
Net income	168 67
Interest accrued during the year:	2,315 25
On funded debt: \$2,310 00	
On other debt 5 25	
Balance for the year (deficit)	2,146 58
Balance at commencement of year (surplus) \$34,579 48	
Deduct: Interest paid (old account) 900 00	
Closed rent account 22 77	
Balance at commencement of year as so changed	33,656 71
Balance September 30, 1879 (surplus)	81,510 13
ANALYSIS OF EARNINGS.	
From local passengers	\$4,573 03
express and extra baggage	41 60
mails	25 00
other sources, passenger department (freight carried)	268 61
TOTAL TRANSPORTATION EARNINGS	4,908 24
Income from all other sources:—	
Sundry sales of old ties, etc.	10 40
TOTAL INCOME FROM ALL SOURCES	\$4,918 64
ANALYSIS OF EXPENSES.	
Taxes	\$375 70
General salaries, office expenses and miscellaneous	493 55
Insurance	115 50
Repairs of road	1,037 70
New ties	1,014 11
[Number laid, 5,000.]	
Repairs of bridges	287 50
Repairs of buildings	36 29
Repairs of locomotives	78 45
Fuel, locomotive power	227 75
Oil and waste	54 15
Repairs of passenger, mail and baggage cars	145 35
Salaries, wages and incidentals of passenger trains	576 11
Salaries, wages and incidentals of passenger stations	307 81
TOTAL EXPENSES	\$4,749 97

Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$91,247 43
Equipment account	14,031 00
Furniture	130 39
Lands in Edgartown	3,371 24
Cash	942 89
Debit balances	129 18
TOTAL ASSETS	\$109,852 13
LIABILITIES.	
Capital stock	\$40,000 00
Funded debt	36,000 00
Unfunded debt (<i>as follows</i>):	2,342 00
Interest unpaid \$2,310 00	
Dividends unpaid 6 00	
Vouchers and accounts 26 00	
Profit & Loss balance	31,510 13
TOTAL LIABILITIES	\$109,852 13
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	5,959 miles.
Number of local passengers (including season)	20,423
Local passenger mileage (local passengers carried one mile)	163,381
DESCRIPTION OF ROAD.	
Length of main line of road from Oak Bluffs to Katama	8.33 miles.
Branches owned by company:—	
Katama to South Beach	.45 “
Total length of branches owned by company in Massachusetts	.45 “
Total length of road belonging to this company	8.78 “
Aggregate length of sidings and other tracks not above enumerated	.50 “
Same in Massachusetts	.50 “
Aggregate length of track, computed as single track	9.28 “
Same in Massachusetts	9.28 “
Total miles of road operated by this company	8.78
Total miles of road operated by this company in Massachusetts, ...	8.78
Number of stations in Massachusetts on all roads operated by this company	4
Number of stations on all roads owned by this company	4
Same in Massachusetts	4
EQUIPMENT.	
Number of locomotives	1
Number of passenger cars	3
Number of baggage, mail and express cars	1

NAME AND RESIDENCE OF OFFICERS.

E. P. Carpenter, *President*, Foxborough, Mass. G. A. Carpenter, *General Passenger Agent*, Foxborough, Mass. Joseph T. Pease, *Treasurer*, Edgartown, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

E. P. Carpenter, Foxborough, Mass. J. H. Hills, Newton, Mass. G. N. Collins, Edgartown, Mass. Henry Ripley, Edgartown, Mass. William Bradley, Edgartown, Mass. Laban Pratt, Neponset, Mass. J. K. Baker, Dennis, Mass.

PROPER ADDRESS OF THE COMPANY.

MARTHA'S VINEYARD RAILROAD COMPANY,
EDGARTOWN, MASS.

E. P. CARPENTER,
LABAN PRATT,
JOEL H. HILLS,
G. N. COLLINS,
HENRY RIPLEY,
Directors.
J. T. PEASE,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

DUKES COUNTY, ss. November 16, 1879. Then personally appeared Henry Ripley, G. N. Collins and J. T. Pease, and severally made oath to the truth of the foregoing statement by them subscribed.

C. H. PEASE,
Notary Public.

SUFFOLK, ss. November 19, 1879. Then personally appeared E. P. Carpenter, Laban Pratt and Joel H. Hills, and severally made oath to the truth of the foregoing statement by them subscribed.

WILLIAM W. CURRUTH,
Justice of the Peace.

GENERAL INFORMATION.	
Number of wooden bridges (aggregate length, 500 feet) . . .	1
Number of crossings of highways at grade	4
Number of crossings at which there are neither electric signals, gates nor flagmen	4
CAPITAL STOCK.	
Capital stock authorized by charter	\$40,000 00
Capital stock authorized by votes of company	40,000 00
Capital stock issued (number of shares, 400); amount paid in . .	\$40,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	40,000 00
Total number of stockholders	23
Number of stockholders in Massachusetts	22
Amount of stock held in Massachusetts	\$37,700 00
DEBT.	
Funded debt as follows:—	
First mortgage bonds, due November, 1884, rate of interest 7 per cent	\$36,000 00
Interest paid on same during year	\$900 00

REPORT

OF THE

MASSACHUSETTS CENTRAL RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is only partially constructed.]

PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.		
Grading and masonry		\$92,693 16
Land, land damages and fences		1,341 48
Engineering, agencies, salaries and other expenses during construction		219,675 20
TOTAL FOR CONSTRUCTION		\$313,709 84
Balance Sheet September 30, 1879.		
ASSETS.		
Construction account		\$3,096,642 62
Cash		1,557 18
Debit balances		70,000 00
TOTAL ASSETS		\$3,168,199 80
LIABILITIES.		
Capital stock		\$1,795,705 78
Funded debt		1,346,000 00
Unfunded debt (<i>as follows</i>):		26,494 02
Notes payable	\$15,180 69	
Vouchers and accounts	11,313 33	
TOTAL LIABILITIES		\$3,168,199 80
<i>Present or Contingent Liabilities not included in the Balance Sheet.</i>		
Over-due coupons		\$354,095 00

NAME AND RESIDENCE OF OFFICERS.

Silas Seymour, *President*, Boston, Mass. Francis J. Parker, *Treasurer*, Newton, Mass. George F. Seymour, *Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Silas Seymour, Boston, Mass. Milton Courtwright, New York. Francis Brigham, Hudson, Mass. James S. Draper, Wayland, Mass. J. Edwin Smith, Worcester, Mass. E. B. Shattuck, Worcester, Mass. Charles A. Cutting, Boston, Mass. Charles M. Harris, West Boylston, Mass. Lewis J. Dudley, Northampton, Mass. Luke Lyman, Northampton, Mass. Franklin Bonney, Hadley, Mass. W. A. Dickinson, Amherst, Mass. Henry F. Hills, Amherst, Mass. James T. Joslin, Hudson, Mass. James W. Rollins, Boston, Mass.

• PROPER ADDRESS OF THE COMPANY.

MASSACHUSETTS CENTRAL RAILROAD COMPANY,
No. 10 PEMBERTON SQUARE, BOSTON, MASS.

S. SEYMOUR,
FRANCIS BRIGHAM,
J. EDWIN SMITH,
L. J. DUDLEY,
FRANKLIN BONNEY,
JAMES W. ROLLINS,
W. A. DICKINSON,
CHAS. A. CUTTING,
Directors.
FRANCIS J. PARKER,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 5, 1879. Then personally appeared Silas Seymour, Francis Brigham, J. Edwin Smith, L. J. Dudley, Franklin Bonney, James W. Rollins and W. A. Dickinson, and severally made oath to the truth of the foregoing statement by them subscribed, to the best of their knowledge and belief.

GEO. S. BOUTWELL,
Justice of the Peace for all the Counties.

Also appeared the above-named Charles A. Cutting, and made oath to the truth of the foregoing statement by him subscribed, as according to the best of his knowledge and belief.

Before me,
GEO. S. BOUTWELL,
Justice of the Peace for all the Counties.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 6, 1879. Then personally appeared Francis J. Parker, and made oath to the truth of the foregoing statement by him subscribed.

WINFIELD S. CHAMBERLIN,
Justice of the Peace.

CAPITAL STOCK.		
Capital stock authorized by charter	\$6,000,000 00	
Capital stock authorized by votes of company	3,500,000 00	
Capital stock issued (number of shares, 9,254); amount paid in,		\$925,400 00
Capital stock paid in on shares not issued (number shares, 20,746),		870,305 78
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.		1,795,705 78
Total number of stockholders	397	
Number of stockholders in Massachusetts	393	
Amount of stock held in Massachusetts	\$2,998,800 00	
DEBT.		
Funded debt, as follows:—		
First mortgage bonds, due January 1, 1893, rate of interest		
7 per cent		\$1,346,000 00

REPORT

OF THE

MIDDLESEX CENTRAL RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston & Lowell Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$15,000 00
Total expense (including taxes)	665 65
Net income	14,334 35
Dividends declared (6 per cent)	15,000 00
Balance for the year (deficit)	665 65
Balance at commencement of year	66,810 00
Balance September 30, 1879 (surplus)	66,144 35
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Construction	\$29,984 40
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account, including real estate	\$340,821 50
Cash items (<i>as follows</i>):	5,322 85
Cash	\$5,312 34
Due from agents and companies	10 51
TOTAL ASSETS	\$346,144 35
LIABILITIES.	
Capital stock	\$280,000 00
Profit & Loss balance	66,144 35
TOTAL LIABILITIES	\$346,144 35
DESCRIPTION OF ROAD.	
Length of main line of road from Lexington to Concord	11.010 miles.
Length of main line of road in Massachusetts	11.010 "
Aggregate length of sidings and other tracks not above enumerated	1.930 "
Same in Massachusetts	1.930 "
Aggregate length of track, computed as single track	12.940 "
Same in Massachusetts	12.940 "
Number of stations on all <i>roads owned</i> by this company	5
Same in Massachusetts	5

NAME AND RESIDENCE OF OFFICERS.

Spencer W. Richardson, *President*, Boston, Mass. Charles B. Dodd, *Treasurer and Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Spencer W. Richardson, Boston, Mass. William H. Hill, Jr., Brookline, Mass. Nathan Carruth, Boston, Mass. Nathan Cushing, Boston, Mass. Jacob Edwards, Boston, Mass. George Keyes, Concord, Mass.

PROPER ADDRESS OF THE COMPANY.

MIDDLESEX CENTRAL RAILROAD COMPANY,
No. 1 SIMMONS BUILDING, 40 WATER STREET, BOSTON, MASS.

SPENCER W. RICHARDSON,
WILLIAM H. HILL, JR.,
JACOB EDWARDS,
NATHAN CUSHING,
NATHAN CARRUTH,
Directors.
CHARLES B. DODD,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, SS. BOSTON, November 6, 1879. Then personally appeared Spencer W. Richardson, William H. Hill, Jr., Jacob Edwards, Nathan Cushing, Nathan Carruth and Charles B. Dodd, and severally made oath to the truth of the foregoing statement by them subscribed.

SAMUEL W. TUCKER,
Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards	7
Number of iron bridges	2
Number of crossings of highways at grade	11
Number of crossings at which gates or flagmen are maintained, ...	3
Number of crossings at which there are neither electric signals, gates nor flagmen	8

CAPITAL STOCK.

Capital stock authorized by charter	\$1,000,000 00
Capital stock authorized by votes of company	280,000 00
Capital stock issued (number of shares, 2,500); amount paid in, ...	250,000 00
Capital stock paid in on shares not issued (number shares, 300*), ...	30,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	280,000 00
Total number of stockholders of stock issued	69
Number of stockholders in Massachusetts	58
Amount of stock held in Massachusetts	\$195,000 00

* Subscribed and paid in by the Boston & Lowell Railroad Co.

REPORT

OF THE

MILFORD & WOONSOCKET RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Providence & Worcester Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$3,480 00
Total expense (including taxes)	151 51
Net income	3,328 49
Interest accrued during the year:	1,330 00
On funded debt \$1,330 00	
Balance for the year (surplus)	1,998 49
Balance at commencement of year	12,937 18
Add: rebate of interest on unfunded debt	7 47
Balance at commencement of year as so changed	12,944 65
Balance September 30, 1879 (surplus)	14,943 14
ANALYSIS OF EARNINGS.	
Rents for use of road	\$3,480 00
ANALYSIS OF EXPENSES.	
Taxes	\$76 51
Insurance	75 00
	\$151 51
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$116,197 10
Cash	271 04
TOTAL ASSETS	\$116,468 14
LIABILITIES.	
Capital stock	\$82,525 00
Funded debt	19,000 00
Profit & Loss balance	14,943 14
TOTAL LIABILITIES	\$116,468 14
DESCRIPTION OF ROAD.	
Length of main line of road from Milford to Bellingham	3.877 miles.
Length of main line of road in Massachusetts	3.877 "
Aggregate length of sidings and other tracks not above enumerated	.459 "
Same in Massachusetts	.459 "
Aggregate length of track, computed as single track	4.336 "
Same in Massachusetts	4.336 "
Number of stations on all roads owned by this company	2
Same in Massachusetts	2

132 MILFORD & WOONSOCKET RAILROAD. [Jan.

NAME AND RESIDENCE OF OFFICERS.

George Draper, *President*, Hopedale, Milford, Mass. Charles F. Claflin, *Treasurer*, Milford, Mass. James R. Davis, *Clerk of Corporation*.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

George Draper, Milford, Mass. Aaron C. Mayhew, Milford, Mass. Samuel Walker, Milford, Mass. Charles F. Claflin, Milford, Mass. Elbridge Mann, Milford, Mass.

PROPER ADDRESS OF THE COMPANY.

MILFORD & WOONSOCKET RAILROAD COMPANY,
MILFORD, MASS.

GEORGE DRAPER,
SAMUEL WALKER,
A. C. MAYHEW,
CHAS. F. CLAFLIN,
Directors.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, ss. MILFORD, October, 1879. Then personally appeared George Draper, Samuel Walker, A. C. Mayhew and Charles F. Claflin, and severally made oath to the truth of the foregoing statement by them subscribed.

N. B. JOHNSON,
Notary Public.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	1
Number of wooden bridges (aggregate length, 229 feet) . . .	9
Number of crossings of highways at grade	7
Number of crossings at which there are neither electric signals, gates nor flagmen	7

CAPITAL STOCK.

Capital stock authorized by charter	\$250,000 00	
Capital stock authorized by votes of company	200,000 00	
Capital stock issued (number of shares, 817); amount paid in . .		\$81,700 00
Capital stock paid in on shares not issued (number shares, 8 $\frac{1}{2}$), . .		825 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. . .		\$82,525 00
Total number of stockholders	41	
Number of stockholders in Massachusetts	34	
Amount of stock held in Massachusetts	\$72,100 00	

DEBT.

Funded debt, as follows:—

First mortgage bonds, due June 1, 1891, rate of interest 7 per cent	\$19,000 00
Interest paid on same during year	\$1,330 00

REPORT OF THE MONADNOCK RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston, Barre & Gardner Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$11,103 40
Total expense (including taxes)	163 93
Net income	10,939 47
Interest accrued during year:	5,950 23
On funded debt \$4,410 00	
On other debt 1,540 23	
Dividends declared (2 per cent)	4,108 00
Balance for the year (surplus)	881 24
Balance at commencement of year	104,309 68
Balance September 30, 1879 (surplus)	105,190 92
ANALYSIS OF EARNINGS.	
Rents for use of road	\$10,910 00
Income from all other sources:	193 40
Real estate not leased with road \$85 40	
Dividend on Monadnock Railroad stock 108 00	
TOTAL INCOME FROM ALL SOURCES	\$11,103 40
ANALYSIS OF EXPENSES.	
General expenses and miscellaneous	\$163 93
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$365,771 47
Other permanent investments:	23,090 00
Stock of Monadnock Railroad \$3,090 00	
Stock of Peterborough & Hillsborough Railroad 20,000 00	
Cash	582 18
Debit balances	1,252 50
TOTAL ASSETS	\$390,696 15
LIABILITIES.	
Capital stock	\$197,926 73
Funded debt	72,000 00
Unfunded debt:	15,578 50
Interest unpaid \$1,252 50	
Dividends unpaid 126 00	
Notes payable 14,200 00	
Profit & Loss balance	105,190 92
TOTAL LIABILITIES	\$390,696 15

DESCRIPTION OF ROAD.	
Length of main line of road from Winchendon to Peterborough,	15.8 miles.
Length of main line of road in Massachusetts	2.038 "
Length of main line of road in New Hampshire	13.762 "
Total length of road belonging to this company	15.800 "
Aggregate length of sidings and other tracks not above enumerated	.600 "
Aggregate length of track, computed as single track	16.400 "
Number of stations on all <i>roads owned</i> by this company	4
Same in Massachusetts	1

NAME AND RESIDENCE OF OFFICERS.

H. K. French, *President*, Peterborough, N.H. W. G. Livingston, *Treasurer and Clerk of Corporation*, Peterborough, N.H.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

H. K. French, Peterborough, N.H. P. Upton, East Jaffrey, N.H. O. H. Bradley, East Jaffrey, N.H. J. H. Fairbanks, Winchendon, Mass. Willis Phelps, Springfield, Mass. J. A. Rumrill, Springfield, Mass. W. G. Livingston, Peterborough, N. H.

PROPER ADDRESS OF THE COMPANY.

MONADNOCK RAILROAD COMPANY,
PETERBOROUGH, N.H.

P. UPTON,
O. H. BRADLEY,
H. K. FRENCH,
Directors.
W. G. LIVINGSTON,
Treasurer.

STATE OF NEW HAMPSHIRE.

HILLSBOROUGH, ss. October 17, 1879. Then personally appeared H. K. French and W. G. Livingston, and severally made oath to the truth of the foregoing statement by them subscribed.

JOHN H. STEELE,
Justice of the Peace.

STATE OF NEW HAMPSHIRE.

CHESHIRE, ss. October 17, 1879. Then personally appeared P. Upton and O. H. Bradley, and severally made oath to the truth of the foregoing statement by them subscribed.

Before me,

F. S. PIERCE,
Justice of the Peace.

GENERAL INFORMATION.	
Number of crossings of highways at grade	1
Number of crossings at which there are neither electric signals, gates nor flagmen	1
CAPITAL STOCK.	
Capital stock authorized by charter	\$350,000 00
Capital stock authorized by votes of company	250,000 00
Capital stock issued (number of shares, 2,054); amount paid in,	\$197,776 73
Capital stock paid in on shares not issued (number shares, 3) .	150 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. .	197,926 73
Total number of stockholders	63
Number of stockholders in Massachusetts	12
Amount of stock held in Massachusetts	\$133,400 00
DEBT.	
Funded debt, as follows:—	
First mortgage bonds, due July 1, 1897, rate of interest 6 per cent	\$72,000 00
Interest paid on same during year	\$4,410 00

REPORT

OF THE

NASHUA, ACTON & BOSTON RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Concord Railroad Company of New Hampshire.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income (rent received)	\$11,000 00
Interest accrued during the year:	33,621 27
On funded debt	\$29,700 00
On other debt	3,921 27
Deficit for the year	22,621 27
Deficit at commencement of year	217,716 62
Balance September 30, 1879 (deficit)	240,337 89
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$1,057,031 20
Cash items (<i>as follows</i>):	2,756 97
Cash	\$6 97
Bills receivable	2,750 00
Profit & Loss balance	240,337 89
TOTAL ASSETS	\$1,300,126 06
LIABILITIES.	
Capital stock	\$500,000 00
Funded debt	495,856 36
Unfunded debt (<i>as follows</i>):	304,269 70
Interest unpaid, coupons	\$145,464 00
Notes payable	147,374 49
Vouchers and accounts	11,431 21
TOTAL LIABILITIES	\$1,300,126 06
DESCRIPTION OF ROAD.	
Length of main line of road from Nashua to North Acton	20.21 miles.
Length of main line of road in Massachusetts	15.46 "
Length of main line of road in New Hampshire	4.75 "
Total length of road belonging to this company	20.21 "
Aggregate length of sidings and other tracks not above enumerated	2.530 "
Same in Massachusetts	.850 "
Aggregate length of track, computed as single track	22.740 "
Same in Massachusetts	5.600 "
Number of stations on all roads owned by this company	6
Same in Massachusetts	5

NAME AND RESIDENCE OF OFFICERS.

John C. Moulton, *President*, Laconia, N.H. Henry Parkinson, *Vice-President*, Nashua, N.H. F. D. Cook, *Treasurer*, Nashua, N.H. John B. Goodrich, *Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

John C. Moulton, Laconia, N.H. S. M. S. Moulton, Laconia, N.H. John B. Clark, Manchester, N.H. John Fletcher, Jr., Acton, Mass. Daniel Wetherbee, Acton, Mass. Henry Parkinson, Nashua, N.H. E. P. Brown, Nashua, N.H. Dana Sargent, Nashua, N.H. Benjamin Saunders, Nashua, N.H. E. B. Hammond, Nashua, N.H.

PROPER ADDRESS OF THE COMPANY.

NASHUA, ACTON & BOSTON RAILROAD COMPANY,
NASHUA, N.H.

JOHN C. MOULTON,
HENRY PARKINSON,
E. B. HAMMOND,
S. M. S. MOULTON,
Directors.
F. D. COOK,
Treasurer.

STATE OF NEW HAMPSHIRE.

HILLSBOROUGH, ss. November 21, 1879. Then personally appeared F. D. Cook, and made oath to the truth of the foregoing statement by him subscribed.

HENRY PARKINSON,
Justice of the Peace.

HILLSBOROUGH, ss. November 22, 1879. Then personally appeared Henry Parkinson and E. B. Hammond, and severally made oath, to the best of their knowledge and belief, of the truth of the foregoing statement by them subscribed.

F. D. COOK,
Notary Public.

BELKNAP, ss. November 22, 1879. Then personally appeared John C. Moulton and S. M. S. Moulton, and severally made oath, to the best of their knowledge and belief, of the truth of the foregoing statement by them subscribed.

Before me,

C. L. DINSMORE,
Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards	2
Number of iron bridges	5
Number of crossings of highways at grade	2
Number of crossings at which there are neither electric signals, gates nor flagmen	2
Number of railroad crossings over other railroads	1

CAPITAL STOCK.

Capital stock authorized by charter	\$600,000 00	
Capital stock authorized by votes of company	500,000 00	
Capital stock issued (number of shares, 4,975); amount paid in,		\$497,500 00
Capital stock paid in on shares not issued (number of shares, 25).		2,500 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. .		500,000 00
Total number of stockholders	200	
Number of stockholders in Massachusetts	98	
Amount of stock held in Massachusetts	\$179,800 00	

DEBT.

Funded debt, as follows:—		
First mortgage bonds, due 1896, rate of interest 6 per cent .		\$495,856 36

REPORT OF THE NASHUA & LOWELL RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$394,387 46
Total expense (including taxes)	220,179 91
Net income	174,207 55
Rentals (specifying amount to each company):	49,257 44
Wilton Railroad	\$14,130 00
Stony Brook Railroad	20,014 29
Peterborough Railroad	1,770 72
Salem & Lowell Railroad	904 17
Lowell & Lawrence Railroad	1,435 30
Middlesex Central Railroad	1,550 00
Phillips Wharf	1,074 67
Boston & Lowell Railroad*	8,378 29
Interest accrued during the year:	21,712 25
On funded debt	\$12,159 00
On other debt	9,553 25
Dividends declared (6 per cent)	48,000 00
Balance for the year (surplus)	55,237 86
Balance at commencement of year	\$90,763 73
Add: appraisal of equipment upon division with the B. & L. R.R., December 1, 1878, in ex- cess of book value	26,437 70
	\$117,201 43
Deduct: charge to material	99 99
Balance at commencement of year as so changed	117,101 44
Balance September 30, 1879 (surplus)	172,339 30
ANALYSIS OF EARNINGS.	
From local passengers	\$79,121 53
through passengers (to and from other roads)	74,922 04
express and extra baggage	8,218 84
mails	5,533 38
other sources, passenger department	9,972 46
Total earnings from passenger department	177,768 25
From local freight	52,518 06
through freight (to and from other roads)	145,798 09
other sources, freight department	921 77
Total earnings from freight department	199,237 92
TOTAL TRANSPORTATION EARNINGS	377,006 17
Income from all other sources:	17,381 29
Interest, credit balance	\$520 78
Rents from hall, stores, etc.	3,709 56
Rents from real estate in Boston	13,150 95
TOTAL INCOME FROM ALL SOURCES	\$394,387 46

* Amount charged in joint account for two months as paid for interest on cost of "terminal facilities" and improvements in property of leased roads to the Boston & Lowell R.R., which charge to joint accounts is not admitted to be correct.

ANALYSIS OF EXPENSES.	
Taxes	\$11,967 02
General salaries, office expenses and miscellaneous	12,377 52
Insurance	1,379 82
Telegraph expenses	215 56
Repairs of road	21,680 53
Steel rails	1,621 61
New ties	7,551 18
[Number laid, 21,405.]	
Repairs of bridges	1,197 33
Repairs of buildings	4,783 29
Repairs of machine-shops and machinery	1,723 96
Repairs of fences, road crossings and signs	966 85
Removing ice and snow	1,489 23
Repairs of locomotives	10,145 59
Fuel, locomotive power	34,084 35
Water and water stations	1,565 20
Fuel for cars, stations, shops and stationary engines	2,273 18
Oil and waste	2,488 98
Switchmen, watchmen, flag and signal men	12,926 67
Repairs of passenger, mail and baggage cars	4,528 11
Damages and gratuities to passengers	492 00
Salaries, wages and incidentals of passenger trains	20,527 47
Salaries, wages and incidentals of passenger stations	12,733 75
Repairs of freight cars	6,441 23
Damages and gratuities, freight	89 38
Salaries, wages and incidentals of freight trains	19,018 49
Salaries, wages and incidentals of freight stations	25,028 51
Freight-car mileage (debit balances)	883 10
TOTAL EXPENSES	\$220,179 91
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Mystic River Quay	\$389 11
Land, land damages and fences	2,000 00
Engine-houses, car-sheds and turn-tables	5,998 21
TOTAL FOR CONSTRUCTION	8,387 32
EQUIPMENT (being the increase of value as per appraisal on division with Boston & Lowell R.R.)	26,437 70
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS, Property sold (or reduced in valuation on the books) and credited property accounts during the year:	34,825 02
One passenger car sold	\$1,000 00
Received from Boston & Lowell R.R. for equipment, taken in excess of their proportion on division, ...	9,558 94
NET ADDITION TO PROPERTY ACCOUNT FOR THE YEAR,	\$24,266 08
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$661,015 51
Equipment account	217,516 45
Other permanent investments:	295,517 95
Lands in Nashua and elsewhere	\$13,861 11
Lands in Boston, including freight-houses	95,325 00
Mystic River Quay	186,331 84
Cash items:	201,671 06
Cash	\$40,999 87
Bills receivable	117,780 50
Due from agents and companies	42,890 69

Other assets (<i>as follows</i>):		\$40,522 33
Materials and supplies	\$37,227 20	
Debit balances	3,295 13	
TOTAL ASSETS		\$1,416,243 30
LIABILITIES.		
Capital stock		\$800,000 00
Funded debt		260,000 00
Unfunded debt:		243,904 00
Dividends unpaid	\$25,192 00	
Notes payable	213,000 00	
Vouchers and accounts	5,712 00	
Profit & Loss balance		172,339 30
TOTAL LIABILITIES		\$1,416,243 30

Present or Contingent Liabilities not included in the Balance Sheet.

There is now pending in the courts of N.H., also in the Circuit Court of the U.S., suits at law and in equity involving the validity of the lease of the Peterborough Railroad, which if decided against this company there will be found due to that road as rental, October 1, 1879, not included in the above liabilities, about \$28,560 00.

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	162,749 miles
Freight-train mileage	78,884 "
Switching-train mileage	61,461 "
Other train mileage	6,981 "
TOTAL TRAIN MILEAGE	310,075 "
Number of season-ticket passengers *	70,710
Number of local passengers (including season)	269,000
Number of through passengers	230,069
TOTAL NUMBER OF PASSENGERS	499,069
Local passenger mileage (local passengers carried one mile)	3,043,800
Through passenger mileage (through passengers carried one mile)	3,566,325
Number of tons of local freight carried	48,070
Number of tons through freight carried	474,090
TOTAL NUMBER TONS FREIGHT CARRIED.	522,160
Local freight mileage (tons local freight carried one mile)	866,037
Through freight mileage (tons through freight carried one mile)	6,867,323
Average weight of passenger trains (exclusive of passengers)	101 tons.
Average number of cars in passenger trains	5 $\frac{1}{2}$
Average weight of freight trains (exclusive of freight)	240 tons.
Average number of cars in freight train	30
Average number of persons employed	247

DESCRIPTION OF ROAD.

Length of main line of road from Nashua, N.H., to Lowell, Mass.	14.50 miles.
Length of main line of road in Massachusetts	9.25 "
Length of main line of road in New Hampshire	5.25 "
Length of double track on main line	14.50 "
Same in Massachusetts	9.25 "
Total length of road belonging to this company	14.50 "
Aggregate length of sidings and other tracks not above enumerated	7.35 "
Same in Massachusetts	4.00 "
Aggregate length of track, computed as single track	36.35 "

* Reckoning twelve passengers per week for time of each season ticket.

Same in Massachusetts	18.50 miles.
Total length of steel rails in tracks, not including steel-top rails	17.08 "
[Weights per yard, 59 pounds.]	
<i>Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.</i>	
Wilton Railroad, length	15.50 miles.
Stony Brook Railroad, length	13.16 "
Peterborough Railroad, length	10.50 "
Total length of above roads	39.16 "
Total length of above roads in Massachusetts	13.16 "
Total length of above roads in New Hampshire	26 "
Total miles of road operated by this company	53.66 "
Total miles of road operated by this company in Massachusetts.	22.41 "
Number of stations in Massachusetts on all roads operated by this company	6
Number of telegraph offices in same	1
Number of stations on all roads owned by this company	5
Same in Massachusetts.	2
EQUIPMENT.	
Number of locomotives	18
Number of passenger cars	17
Number of baggage, mail and express cars	6
Number of freight cars (basis of 8 wheels)	288
Number of other cars	4

NAME AND RESIDENCE OF OFFICERS.

Francis A. Brooks, *President*, Boston, Mass. Charles E. Paige, *Superintendent and General Freight Agent*, Lowell, Mass. James W. Flavin, *General Passenger Agent*. C. V. Dearborn, *Treasurer*, Nashua, N.H. O. C. Moore, *Clerk of Corporation*, Nashua, N.H.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

J. W. White, Nashua, N. H. W. W. Bailey, Nashua, N.H. C. V. Dearborn, Nashua, N.H. Francis A. Brooks, Boston, Mass. Francis V. Parker, Boston, Mass. David N. Skillings, Winchester, Mass. Albert M. Shaw, Lebanon, N.H.

PROPER ADDRESS OF THE COMPANY.

NASHUA & LOWELL RAILROAD CORPORATION,
NASHUA, N.H.

FRANCIS A. BROOKS,
FRANCIS V. PARKER,
J. W. WHITE,
W. W. BAILEY,
C. V. DEARBORN,
Directors.
C. V. DEARBORN,
Treasurer.
CHAS. E. PAIGE,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 21, 1879. Then personally appeared Francis A. Brooks and Francis V. Parker, and severally made oath to the truth of the foregoing statement by them subscribed.

Before me,

ALFRED S. HALL,

Justice of the Peace.

STATE OF NEW HAMPSHIRE.

HILLSBOROUGH, ss. November 20, 1879. Then personally appeared J. W. White, W. W. Bailey, C. V. Dearborn and Charles W. Paige, and severally made oath that the foregoing statement by them subscribed is true, according to their best knowledge and belief.

Before me,

GEO. SWAIN,

Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	73,000 lbs.
Average weight of locomotives in working order . . .	58,500 "
Maximum weight of tenders full of fuel and water . . .	46,000 "
Average weight of tenders full of fuel and water . . .	43,500 "
Maximum weight of passenger cars . . .	39,250 "
Average weight of passenger cars . . .	35,560 "
Average weight of mail and baggage cars . . .	37,000 "
Average weight of 8-wheel box freight cars . . .	16,700 "
Average weight of 4-wheel box freight cars . . .	8,400 "
Average weight of 8-wheel platform cars . . .	14,500 "
Average weight of 4-wheel platform cars . . .	7,000 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	42 feet.
Total length of heaviest engine and tender over all . . .	51 "
Number of locomotives equipped with train-brake . . .	13
[Kind of brake: Smith's vacuum.]	
Number of cars equipped with train-brake . . .	17
[Kind of brake: Smith's vacuum.]	
Number of passenger cars with Miller platform and buffer . .	17
Number of spans of bridges, of 25 feet and upward . . .	3
Number of iron bridges (aggregate length, 164 feet) . . .	1
Number of wooden bridges (aggregate length, 215 feet) . . .	4
Number of crossings of highways at grade . . .	5
Number of crossings of highways over railroad . . .	1
Number of highway bridges less than 18 feet above track . .	1
Number of crossings at which gates or flagmen are maintained,	5

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .	3.78 cents.
Average rate of fare per mile received from passengers to and from other roads . . .	2.12 "
Average rate of fare per mile for season-ticket passengers . .	0.91 "
Average rate of fare per mile received from all passengers . .	2.33 "
Average rate of local freight per ton per mile on roads operated by this company . . .	1.09 "
Average rate of freight per ton per mile received from freight to and from other roads . . .	2.12 "

CAPITAL STOCK.		
Capital stock authorized by charter . . .	\$800,000 00	
Capital stock authorized by votes of company . .	800,000 00	
Capital stock issued (number of shares, 8,000); amount paid in,		\$800,000 00
Total number of stockholders	439	
Number of stockholders in Massachusetts	205	
Amount of stock held in Massachusetts	\$535,000 00	
DEBT.		
Funded debt, as follows:—		
Gold bonds, due August 1, 1893, rate of interest 6 per cent,		
gold		\$200,000 00
Interest paid on same during year	\$12,159 00	

REPORT OF THE NEWBURYPORT RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston & Maine Railroad. Its doings during the year, its income and expenditures, are included in the report of that road, its business being so intimately connected that separate accounts have not been kept.]

Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$597,386 33
TOTAL ASSETS	\$597,386 33
LIABILITIES.	
Capital stock	\$220,340 02
Funded debt	300,000 00
Unfunded debt	77,046 31
TOTAL LIABILITIES	\$597,386 33
DESCRIPTION OF ROAD.	
Length of main line of road from Bradford to Newburyport, and Georgetown to Danvers	26.979 miles.
Length of main line of road in Massachusetts	26.979 "
Total length of road belonging to this company	26.979 "
Aggregate length of sidings and other tracks not above enumerated	2.477 "
Same in Massachusetts	2.477 "
Aggregate length of track, computed as single track	29.456 "
Same in Massachusetts	29.456 "
Number of stations on all roads owned by this company	8
Same in Massachusetts	8

NAME AND RESIDENCE OF OFFICERS.

Nathaniel G. White, *President*, Lawrence, Mass. James T. Furber, *Superintendent*, Lawrence, Mass. W. J. C. Kenney, *General Freight Agent*, Danvers, Mass. Amos Blanchard, *Treasurer*, Lowell, Mass. Chauncey P. Judd, *Clerk of Corporation*, Reading, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

N. G. White, Lawrence, Mass. George C. Lord, Newton, Mass. Amos Paul, South Newmarket, N.H. N. J. Bradlee, Boston, Mass. William S. Stevens, Dover, N.H. J. R. Nichols, Haverhill, Mass. J. F. Osgood, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

NEWBURYPORT RAILROAD, BOSTON, MASS.

NATHANIEL G. WHITE,
 GEORGE C. LORD,
 NATH'L J. BRADLEE,
 AMOS PAUL,
 WM. S. STEVENS,
 JAMES R. NICHOLS,

Directors.

A. BLANCHARD,

Treasurer.

JAS. T. FURBER,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 5, 1879. Then personally appeared Nathaniel G. White, George C. Lord, Nathaniel J. Bradlee, Amos Paul, William S. Stevens, James R. Nichols, Amos Blanchard and James T. Furber, and severally made oath to the truth of the foregoing statement by them subscribed, according to their best knowledge and belief.

Before me,

C. P. JUDD,

Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	3
Number of wooden bridges (aggregate length, 559 feet) . . .	25
Number of crossings of highways at grade	28
Number of crossings of highways under railroad	1
Number of crossings at which gates or flagmen are maintained, ...	6
Number of crossings at which there are neither electric signals, gates nor flagmen	22
Number of railroad crossings at grade:	1
Eastern Railroad near Newburyport.	

CAPITAL STOCK.

Capital stock authorized by charter	\$430,000 00
Capital stock authorized by votes of company	202,100 00
Capital stock issued (number of shares, 2,021); amount paid in, ...	\$202,100 00
Capital stock paid in on shares not issued	18,240 02
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.	220,340 02

DEBT.

Funded debt, as follows: —	
Bonds	\$300,000 00

REPORT OF THE NEWBURYPORT CITY RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Eastern Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.

Total income.	\$7,064 77
Total expense (including taxes)	881 61
Net income	6,183 16
Interest accrued during year:	1,750 00
On funded debt	\$1,750 00
Dividends declared (4 per cent)	3,880 00
Balance for the year (surplus)	553 16
Balance at commencement of year	11,102 84
Balance September 30, 1879 (surplus)	11,656 00

ANALYSIS OF EARNINGS.

Rents for use of road	\$6,000 00
Income from all sources:	1,064 77
Rent of dwelling-house	\$35 55
Interest accrued on sinking funds	1,029 22

TOTAL INCOME FROM ALL SOURCES \$7,064 77

ANALYSIS OF EXPENSES.

Taxes	\$605 54
General salaries, office expenses and miscellaneous	276 07

TOTAL EXPENSES \$881 61

PROPERTY ACCOUNTS : CREDITS DURING THE YEAR.

Dwelling-house sold	\$700 00
---------------------	----------

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$121,928 33
Cash	933 79
Sinking fund.	10,793 88
TOTAL ASSETS	\$133,656 00

LIABILITIES.

Capital stock	\$97,000 00
Funded debt	25,000 00
Profit & Loss balance	11,656 00
TOTAL LIABILITIES	\$133,656 00

DESCRIPTION OF ROAD.	
Length of main line of road from Boston & Maine Railroad to city wharf	2.080 miles.
Length of main line of road in Massachusetts	2.080 "
Length of double track on main line	.150 "
Same in Massachusetts	.150 "
Total length of road belonging to this company	2.230 "
Aggregate length of sidings and other tracks not above enumerated	1.800 "
Same in Massachusetts	1.800 "
Aggregate length of track, computed as single track	4.030 "
Same in Massachusetts	4.030 "
Number of stations on all roads owned by this company	1
Same in Massachusetts	1

NAME AND RESIDENCE OF OFFICERS.

Albert Currier, *President*, Newburyport. A. W. Greenleaf, *Treasurer and Clerk of Corporation*, Newburyport.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

John J. Currier (Mayor), Newburyport. Albert Currier, Newburyport. William H. Huse, Newburyport. Moses H. Fowler, Newburyport. Warren Currier, Newburyport. Edward F. Coffin, Newburyport. Henry M. Cross, Newburyport.

PROPER ADDRESS OF THE COMPANY.

NEWBURYPORT CITY RAILROAD COMPANY,
NEWBURYPORT, MASS.

JOHN J. CURRIER (Mayor),
ALBERT CURRIER,
WARREN CURRIER,
EDWARD F. COFFIN,
WILLIAM H. HUSE,
M. H. FOWLER,

Directors.

A. W. GREENLEAF,

Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

ESSEX, ss. October 16, 1879. Then personally appeared John J. Currier (Mayor), Albert Currier, Warren Currier, Edward F. Coffin, William H. Huse, M. H. Fowler, Directors, and A. W. Greenleaf, Treasurer, and severally made oath to the truth of the foregoing statement by them subscribed.

GEORGE H. STEVENS,

Justice of the Peace.

GENERAL INFORMATION.	
Number of crossings of highways at grade	4
Number of crossings of highways over railroad	3

Number of highway bridges 18 feet above track	3
Number of crossings at which gates or flagmen are maintained,	2
Number of crossings at which there are neither electric signals,	
gates nor flagmen	2
Number of railroad crossings at grade:	1
Eastern Railroad.	
Number of railroad crossings over other railroads:	1
Eastern Railroad.	
CAPITAL STOCK.	
Capital stock authorized by charter	\$100,000 00
Capital stock authorized by votes of company	100,000 00
Capital stock issued (number of shares, 970); amount paid in . .	\$97,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	97,000 00
Total number of stockholders	29
Number of stockholders in Massachusetts	27
Amount of stock held in Massachusetts	\$95,500 00
DEBT.	
Funded debt, as follows:—	
Bonds due 1892, rate of interest 7 per cent	\$25,000 00
Interest paid on same during year	\$1,750 00

REPORT

OF THE

NEW HAVEN & NORTHAMPTON RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income.	\$588,280 50
Total expense (including taxes)	366,074 33
Net income	222,206 17
Rentals (Holyoke and Westfield Railroad):	18,053 57
Interest on bonds	\$15,800 00
Half excess over \$31,600	2,253 57
Interest accrued during year:	162,555 77
On funded debt	\$148,050 00
On other debt	14,505 77
Balance for the year (surplus)	41,596 83
Balance at commencement of year	67,702 30
Balance September 30, 1879 (surplus)	109,299 13
ANALYSIS OF EARNINGS.	
From local passengers	\$92,438 97
through passengers (to and from other roads)	32,623 20
express and extra baggage	12,000 00
mails	11,264 45
<i>Total earnings from passenger department</i>	148,326 62
From local freight	275,170 92
through freight (to and from other roads)	137,598 84
other sources, freight department	25,500 12
<i>Total earnings from freight department</i>	438,269 88
TOTAL TRANSPORTATION EARNINGS	586,596 50
Income from all other sources:—	
Rent of buildings and grounds	1,684 00
TOTAL INCOME FROM ALL SOURCES	\$588,280 50
ANALYSIS OF EXPENSES.	
Taxes	\$16,654 46
General salaries, office expenses and miscellaneous	25,938 67
Insurance	1,600 65
Repairs of road	52,674 75
Steel rails	31,260 04
[Number of tons laid, 754.]	
New ties	17,784 34
[Number laid, 52,343.]	
Repairs of bridges	26,863 26
Repairs of buildings and wharves	12,334 85
Repairs of machine-shops and machinery	236 66
Repairs of fences, road crossings and signs	1,076 32

Removing ice and snow	\$666 20
Repairs of locomotives	20,791 90
Fuel, locomotive power	34,901 91
Water and water stations	824 95
Fuel for cars, stations, shops and stationary engines	1,064 69
Oil and waste	5,300 03
Switchmen, watchmen, flag and signal men	7,969 14
Repairs of passenger, mail and baggage cars	5,333 39
Salaries, wages and incidentals of passenger trains	19,462 97
Salaries, wages and incidentals of passenger stations	11,712 82
Repairs of freight cars	13,810 36
Damages and gratuities, freight	411 52
Salaries, wages and incidentals of freight trains	24,956 97
Salaries, wages and incidentals of freight stations	32,442 88
TOTAL EXPENSES	\$366,074 33
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Grading and masonry, Holyoke branch track	\$20,468 53
Bridging	9,570 00
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS, Property sold (or reduced in valuation on the books) and credited property accounts during the year:	\$30,038 53 1,562 16
Coal-hoister	\$62 16
Land	1,500 00
NET ADDITION TO PROPERTY ACCOUNT FOR THE YEAR,	\$28,476 37
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$4,035,257 89
Equipment account	796,515 66
Other permanent investments:	83,375 00
Lands in Westfield and New Hartford	\$3,375 00
Stock of Holyoke & Westfield Railroad	20,000 00
Bonds of Holyoke & Westfield Railroad	60,000 00
Cash items:	50,988 87
Cash	\$20,217 34
Due from agents and companies	30,771 53
Other assets:	67,325 08
Materials and supplies	\$59,825 08
Sinking fund	7,500 00
TOTAL ASSETS	\$5,033,462 50
LIABILITIES.	
Capital stock	\$2,460,000 00
Funded debt	2,324,000 00
Unfunded debt (<i>as follows</i>):	140,163 37
Interest unpaid	\$30,617 23
Dividends unpaid	1,904 00
Notes payable	104,300 00
Vouchers and accounts	3,342 14
Profit & Loss balance (surplus)	109,299 13
TOTAL LIABILITIES	\$5,033,462 50

Present or Contingent Liabilities not included in the Balance Sheet.

Bonds guaranteed by this company:—

Holyoke & Westfield Railroad 7 per cent bonds . . .	\$200,000 00
Holyoke & Westfield Railroad 6 per cent bonds . . .	60,000 00

TOTAL (not included in Balance Sheet) . . .	\$260,000 00
--	---------------------

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	211,121 miles
Freight-train mileage	149,266 "
Switching-train mileage	10,260 "
Other train mileage (gravel)	15,181 "
TOTAL TRAIN MILEAGE	385,828 "
Number of local passengers	225,533
Number of through passengers	53,091
TOTAL NUMBER OF PASSENGERS	278,624
Local passenger mileage (local passengers carried one mile)	3,565,078
Through passenger mileage (through passengers carried one mile)	1,162,779
Number of tons of local freight carried	192,216
Number of tons through freight carried	118,964
TOTAL NUMBER OF TONS FREIGHT CARRIED	311,180
Local freight mileage (tons local freight carried one mile)	9,349,594
Through freight mileage (tons through freight carried one mile), ...	5,593,204
Average number of cars in passenger trains	4
Average number of persons employed	354

DESCRIPTION OF ROAD.

Length of main line of road from New Haven to Williamsburgh, ...	83.88 miles.
Length of main line of road in Massachusetts	32.62 "
Length of main line of road in Connecticut	51.26 "
Branches owned by company:—	
Farmington to New Hartford (single track), length	14.09 "
Simsbury to Tariffville (single track), length	1.04 "
Total length of branches owned by company	15.13 "
Total length of branches owned by company in Connecticut	15.13 "
Total length of road belonging to this company	99.01 "
Aggregate length of sidings and other tracks not above enumerated	27 "
Same in Massachusetts	12.750 "
Aggregate length of track, computed as single track	126.010 "
Same in Massachusetts	45.370 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 60 pounds.]	66 "

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Holyoke & Westfield Railroad	10.32 miles.
Branches to mills and side tracks	6.90 "
Total length of above roads	17.22 "
Total length of above roads in Massachusetts	17.22 "
Total miles of road operated by this company	109.33 "
Total miles of road operated by this company in Massachusetts, ...	42.94 "
Number of stations in Massachusetts on all roads operated by this company	10
Number of telegraph offices in same	5
Number of stations on all roads owned by this company	24
Same in Massachusetts	9

EQUIPMENT.

Number of locomotives	20
Number of passenger cars	18
Number of baggage, mail and express cars	8
Number of freight cars (basis of 8 wheels)	416
Number of other cars (gravel)	41

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .	-	-	-	-	-	-	-	-
Employés .	-	-	-	-	-	-	-	-
Others .	-	-	-	1	-	-	1	1

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

July 15, 1879. — Fritz Miller, walking on the track near Collinsville station, was struck by engine and killed.

August 7, 1879. — Engine of morning train, north, struck a carriage near Connecticut River Railroad station at Northampton; the occupant, Mrs. Bodman, was thrown out, but not permanently injured.

NAME AND RESIDENCE OF OFFICERS.

Charles N. Yeamans, *President*, Westfield, Mass.: office, New Haven, Conn. George St. John, *Vice-President*, Sheffield, N.Y. Charles N. Yeamans, *General Manager and Superintendent*. M. C. Parker, *General Freight Agent*, New Haven, Conn. Edward A. Ray, *General Passenger Agent, Treasurer and Secretary of Corporation*, New Haven, Conn.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

A. L. Kidston, New Haven, Conn. M. G. Elliott, New Haven, Conn. Charles N. Yeamans, Westfield, Mass. H. M. Welch, New Haven, Conn. William Walter Phelps, New York. George St. John, Sheffield, N.Y. George J. Brush, New Haven, Conn. Daniel Trowbridge, New Haven, Conn. H. G. Knight, Easthampton, Mass.

PROPER ADDRESS OF THE COMPANY.

THE NEW HAVEN & NORTHAMPTON COMPANY,
NEW HAVEN, CONN.

CHAS. N. YEAMANS,
M. G. ELLIOTT,
H. M. WELCH,
A. L. KIDSTON,
GEO. J. BRUSH,

Directors.

EDWARD A. RAY,

Treasurer.

CHAS. N. YEAMANS,

Pres't and Sup't.

STATE OF CONNECTICUT.

COUNTY OF NEW HAVEN, ss. NEW HAVEN, November 17, 1879. Then personally appeared Charles N. Yeamans, M. G. Elliott, H. M. Welch, A. L. Kidston, George J. Brush and Edward A. Ray, and severally made oath to the truth of the foregoing statement by them subscribed, to the best of their knowledge and belief.

GEO. A. BUTLER,

Notary Public.

GENERAL INFORMATION.	
Maximum weight of locomotives in working order . . .	62,400 lbs.
Maximum weight of tenders full of fuel and water . . .	44,500 "
Average weight of passenger cars	39,100 "
Average weight of mail and baggage cars	33,900 "
Average weight of 8-wheel box freight cars	19,600 "
Average weight of 8-wheel platform cars	16,400 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	43 feet.
Total length of heaviest engine and tender over all . . .	51 "
Number of locomotives equipped with train-brake	11
[Kind of brake: Westinghouse air.]	
Number of cars equipped with train-brake	28
[Kind of brake: Westinghouse air.]	
Number of passenger cars with Miller platform and buffer .	17

BRIDGES BUILT WITHIN THE YEAR IN MASSACHUSETTS.

LOCATION.	KIND.	MATERIAL.	LENGTH.	WHEN BUILT.
Gt. River, Westfield.	Through pin and	link iron.	330 feet.	November, 1878.
Little River, Westfd.	1 span deck pin	and link iron 160 ft.	204 feet.	November, 1878.
	2 span plate gird	er 22 ft. iron 44 ft.		
Number of spans of bridges, of 25 feet and upwards . . .				12
Number of iron bridges (aggregate length, 1,512 feet) . .				7
Number of wooden bridges (aggregate length, 1,007 feet) .				5
Number of crossings of highways at grade				48
Number of crossings of highways over railroad				6
Number of crossings of highways under railroad				3
Number of highway bridges 18 feet above track				6
Number of crossings at which gates or flagmen are maintained,				2
Number of crossings at which there are neither electric signals,				
gates nor flagmen				46
Number of railroad crossings at grade:				1
Boston & Albany Railroad at Westfield.				
RATES OF FARE, ETC.				
Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company .				2.6 cents.
Average rate of fare per mile received from passengers to and from other roads				2.8 "
Average rate of fare per mile received from all passengers .				2.64 "
Average rate of local freight per ton per mile on roads operated by this company				2.94 "
Average rate of freight per ton per mile received from freight to and from other roads				2.44 "

CAPITAL STOCK.		
Capital stock authorized by charter . . .	\$5,000,000 00	
Capital stock authorized by votes of company . .	2,600,000 00	
Capital stock issued (number of shares, 24,600); amount paid in,		\$2,460,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. .		2,460,000 00
Total number of stockholders	338	
Number of stockholders in Massachusetts	63	
Amount of stock held in Massachusetts . . .	\$245,700 00	
DEBT.		
Funded debt, as follows :—		
First mortgage bonds, due 1899, rate of interest 7 per cent .		\$1,296,000 00
Interest paid on same during year	\$90,720 00	
Convertible bonds, due 1880, rate of interest 6 per cent . .		190,000 00
Interest paid on same during year	18,630 00	
Convertible bonds, due 1882, rate of interest 6 per cent . .		429,000 00
Interest paid on same during year	28,260 00	
Consolidated bonds, due 1909, rate of interest 6 per cent .		409,000 00
Interest paid on same during year	10,440 00	
TOTAL AMOUNT OF FUNDED DEBT		2,324,000 00

REPORT

OF THE

NEW LONDON NORTHERN RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by J. Gregory Smith and others.]

GENERAL EXHIBIT FOR THE YEAR.		
[Company's Account.]		
Rents received from lessees		\$155,000 00
Other rents		100 00
Interest		21,965 19
Total income		177,065 19
General expenses		4,249 46
Net income		172,815 73
Interest accrued during year:		45,125 00
On funded debt	\$45,125 00	
Dividends declared (6 per cent)		90,000 00
Balance for the year (surplus)		37,690 73
Balance at commencement of year	58,106 71	
Deduct:		
Damage by freshet	\$1,574 78	
Old coupons	18 00	
	—————\$1,592 78	
Less:		
Land sold	\$10 00	
Old check cancelled	4 38	
	—————14 38	
		1,578 40
Balance at commencement of year as so changed		56,528 31
Balance September 30, 1879 (surplus)		94,219 04
ANALYSIS OF EARNINGS.		
[Lessees' Account.]		
From local passengers		\$90,770 97
through passengers (to and from other roads)		71,246 02
express and extra baggage		7,268 23
mails		6,790 42
Total earnings from passenger department		176,075 64
From local freight		110,909 24
through freight (to and from other roads)		183,117 05
Total earnings from freight department		294,026 29
TOTAL TRANSPORTATION EARNINGS		470,101 93
Income from all other sources:		30,389 93
Rents of buildings, tenements, etc.	\$10,501 65	
Net earnings of propellers belonging to this line, ...	19,888 28	
	—————	
TOTAL INCOME FROM ALL SOURCES		\$500,491 86

ANALYSIS OF EXPENSES.
[Lessees' Account.]

Taxes	\$18,925 66
General salaries, office expenses and miscellaneous	11,791 23
Insurance and damages for fires set by engines	3,084 85
Telegraph expenses	1,911 84
Repairs of road	38,451 26
Steel rails	16,974 12
[Number of tons laid, 356.]	
New ties	11,042 78
[Number laid, 34,540.]	
Repairs of bridges	5,364 51
Repairs of buildings	10,506 05
Repairs of machine-shops and machinery	1,724 56
Repairs of fences, road crossings and signs	3,393 52
Removing ice and snow	621 10
Repairs of locomotives	14,634 20
Fuel, locomotive power	48,872 68
Water and water stations	1,070 92
Fuel for cars, stations, shops and stationary engines	3,708 40
Oil and waste	6,531 48
Switchmen, watchmen, flag and signal men	4,139 58
Repairs of passenger, mail and baggage cars	7,090 82
Salaries, wages and incidentals of passenger trains	20,556 42
Salaries, wages and incidentals of passenger stations	11,571 22
Repairs of freight cars	19,437 24
Damages and gratuities	2,498 95
Salaries, wages and incidentals of freight trains	21,891 14
Salaries, wages and incidentals of freight stations	38,200 39
Freight-car mileage (debit balances)	5,548 78
TOTAL EXPENSES	\$329,543 70

PROPERTY ACCOUNTS : CHARGES DURING THE YEAR.

Grading and masonry	\$519 09
Superstructure, including rails	2,507 05
Land, land damages and fences	25 75
Passenger and freight stations, wood-sheds and water stations	1,296 67
Engine-houses, car-sheds and turn-tables	312 42
Machine-shops	2,133 17
TOTAL FOR CONSTRUCTION	6,794 15
New snow plough (number, 1)	1,727 52
Freight and other cars (number, 3)	2,800 00
TOTAL FOR EQUIPMENT	4,527 52
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS,	11,321 67

Balance Sheet September 30, 1879.

ASSETS.

Construction account and improvement account	\$2,059,502 53
Equipment account	236,429 63
Other permanent investments:	65,000 00
Steamboat property	\$65,000 00
Cash items:	32,140 38
Cash	32,140 38
Other assets:	40,921 04
Debit balances	40,921 04
TOTAL ASSETS	\$2,433,993 58

LIABILITIES.	
Capital stock	\$1,500,000 00
Funded debt	687,500 00
Unfunded debt:	152,274 54
Interest unpaid	\$903 00
Dividends unpaid	1,184 75
Notes payable	150,000 00
Vouchers and accounts	186 79
Profit & Loss balance (surplus)	94,219 04
TOTAL LIABILITIES	\$2,433,993 58
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	229,665 miles
Freight-train mileage	232,004 "
Other train mileage	1,635 "
TOTAL TRAIN MILEAGE	463,294 "
Number of season-ticket passengers *	10,316
Number of local passengers (including season)	159,304
Number of through passengers	91,256
TOTAL NUMBER OF PASSENGERS	250,560
Local passenger mileage (local passengers carried one mile)	2,785,469
Through passenger mileage (through passengers carried one mile)	1,142,052
Number of tons of local freight carried	81,420
Number of tons through freight carried	206,434
TOTAL NUMBER OF TONS FREIGHT CARRIED	287,854
Local freight mileage (tons local freight carried one mile)	3,039,094
Through freight mileage (tons through freight carried one mile)	9,598,863
Average weight of passenger trains (exclusive of passengers)	102 tons.
Average number of cars in passenger trains	2
Average weight of freight trains (exclusive of freight)	205 tons.
Average number of cars in freight train	16
Average number of persons employed	425
DESCRIPTION OF ROAD.	
Length of main line of road from New London to Miller's Falls, ...	100 miles
Length of main line of road in Massachusetts	44 "
Length of main line of road in Connecticut	56 "
Total length of road belonging to this company	100 "
Aggregate length of sidings and other tracks not above enumerated	16.90 "
Same in Massachusetts	5.29 "
Aggregate length of track, computed as single track	116.90 "
Same in Massachusetts	49.29 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 58 pounds.]	27.51 "
Total miles of road operated by lessees	100 "
Total miles of road operated by lessees in Massachusetts	44 "
Number of stations in Massachusetts on all roads operated by lessees	16
Number of telegraph offices in same	8
Number of stations on all roads owned by this company	39
Same in Massachusetts	16
EQUIPMENT.	
Number of locomotives	22
Number of passenger cars	15
Number of baggage, mail and express cars	9
Number of freight cars (basis of 8 wheels)	276

* Reckoning twelve passengers per week for time of each season ticket.

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .	-	-	-	-	-	-	-	-
Employés .	-	-	-	-	-	-	1	1
Others. . .	-	-	-	-	-	-	2	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

[None in Massachusetts.]

NAME AND RESIDENCE OF OFFICERS.

Charles Osgood, *President*, Norwich, Conn. George W. Bentley, *Superintendent*, New London, Conn. C. F. Spaulding, *General Freight Agent and General Passenger Agent*, New London, Conn. Robert Coit, *Treasurer and Clerk of Corporation*, New London, Conn.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Charles Osgood, Norwich, Conn. William W. Billings, New London, Conn. William H. Bams, New London, Conn. Benjamin Stark, New London, Conn. Augustus Brandegee, New London, Conn. Robert Coit, New London, Conn. Jonathan N. Harris, New London, Conn. Thomas Ramsdell, Windham, Conn. William H. Hill, Boston, Mass. William Allen Butler, New York, N.Y. James A. Rumrill, Springfield, Mass.

PROPER ADDRESS OF THE COMPANY.

NEW LONDON NORTHERN RAILROAD COMPANY,
NEW LONDON, CONN.

CHARLES OSGOOD,
W. W. BILLINGS,
BENJ. STARK,
W. H. BAMS,
ROBERT COIT,
Directors.
ROBERT COIT,
Treasurer.
G. W. BENTLEY,
Superintendent.

STATE OF CONNECTICUT.

NEW LONDON COUNTY, SS. NEW LONDON, November 5, 1879. Then personally appeared Charles Osgood, W. W. Billings, Benjamin Stark, William H. Bams and Robert Coit, Directors, and G. W. Bentley, Superintendent, and severally made oath to the truth of the foregoing statement by them subscribed.

JUSTUS A. SOUTHARD,
Notary Public.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	34 tons.
Average weight of locomotives in working order . . .	28 "
Maximum weight of tenders full of fuel and water . . .	19 "
Average weight of tenders full of fuel and water . . .	17 "
Maximum weight of passenger cars	22 "
Average weight of passenger cars	19 "
Average weight of mail and baggage cars	15 "
Average weight of 8-wheel box freight cars	8 "
Average weight of 8-wheel platform cars	7 "
Average weight of 4-wheel platform cars	4 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	42 feet.
Total length of heaviest engine and tender over all . . .	51 "
Number of locomotives equipped with train-brake . . .	10
[Kind of brake: Westinghouse automatic.]	
Number of cars equipped with train-brake	24
[Kind of brake: Westinghouse automatic.]	
Number of passenger cars with Miller platform and buffer .	24
Number of spans of bridges, of 25 feet and upwards . . .	15
Number of iron bridges (aggregate length, 20 feet) . . .	1
Number of wooden bridges (aggregate length, 2,417 feet) . .	28
Number of crossings of highways at grade	54
Number of crossings of highways over railroad	2
Number of crossings of highways under railroad	3
Number of highway bridges 18 feet above track	3
Number of crossings at which gates or flagmen are maintained,	1
Number of crossings at which there are neither electric signals, gates nor flagmen	53
Number of railroad crossings at grade:	3
At Palmer.	
At Barrett's Junction.	
At Miller's Falls.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . .	3.75 cents.
Average rate of fare per mile for season-ticket passengers.* .	.86 "
Average rate of local freight per ton per mile on roads operated by this company	3.6 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	1.9 "

CAPITAL STOCK.

Capital stock authorized by charter	\$1,500,000 00
Capital stock authorized by votes of company	1,500,000 00
Capital stock issued (number of shares, 15,000); amount paid in,	\$1,500,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. .	
Total number of stockholders	297
Number of stockholders in Massachusetts	33
Amount of stock held in Massachusetts	\$275,500

DEBT.

Funded debt, as follows:—	
First mortgage bonds, due 1885, rate of interest 6 per cent .	\$300,000 00
Interest paid on same during year	\$18,000 00
Second mortgage bonds, due 1892, rate of interest 7 per cent,	387,500 00
Interest paid on same during year	27,125 00
TOTAL AMOUNT OF FUNDED DEBT	687,500 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT OF THE NEW YORK & NEW ENGLAND RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.

Total income	\$1,971,536 43
Total expense (including taxes)	1,447,182 50
Net income	524,353 93
Rentals	59,400 66
Interest accrued during the year:	261,930 19
On funded debt	\$229,525 10
On other debt	32,405 09

Balance for the year (surplus)	203,023 08
Balance at commencement of year	201,721 43
Balance September 30, 1879 (surplus)	404,744 51

ANALYSIS OF EARNINGS.

From local passengers	\$506,391 47
through passengers (to and from other roads)	281,825 48
express and extra baggage	57,121 81
mails	25,013 50
other sources, passenger department	4,436 88
<i>Total earnings from passenger department</i>	<i>874,789 14</i>
From local freight	487,213 40
through freight (to and from other roads)	540,895 87
other sources, freight department	30,613 07
<i>Total earnings from freight department</i>	<i>1,058,722 34</i>
TOTAL TRANSPORTATION EARNINGS	1,933,511 48
Income from all other sources:—	
Rents for buildings and lands	38,024 95

TOTAL INCOME FROM ALL SOURCES	\$1,971,536 43
--	-----------------------

ANALYSIS OF EXPENSES.

Taxes	\$17,791 19
General salaries, office expenses and miscellaneous	52,525 47
Insurance	6,511 16
Telegraph expenses	11,766 44
Repairs of road	218,225 73
Iron rails	14,678 91
[Number of tons laid, 1,577.]	
Steel rails	40,357 41
[Number of tons laid, 2,317.]	
New ties	34,685 26
[Number laid, 110,616.]	
Repairs of bridges	49,802 62
Repairs of buildings	28,521 84
Repairs of machine-shops and machinery	10,685 64
Repairs of fences, road crossings and signs	6,457 64
Removing ice and snow	1,110 46

162 NEW YORK & NEW ENGLAND RAILROAD. [Jan.

Repairs of locomotives	\$67,294 76
Fuel, locomotive power	149,988 73
Water and water stations	14,954 43
Fuel for cars, stations, shops and stationary engines	10,456 81
Oil and waste	7,870 33
Switchmen, watchmen, flag and signal men	54,115 40
Repairs of passenger, mail and baggage cars	50,915 37
Damages and gratuities to passengers	16,449 50
Salaries, wages and incidentals of passenger trains	131,042 50
Salaries, wages and incidentals of passenger stations	101,324 60
Repairs of freight cars	37,942 88
Damages and gratuities, freight	3,326 93
Salaries, wages and incidentals of freight trains	105,073 66
Salaries, wages and incidentals of freight stations	155,637 74
Freight-car mileage (debit balances)	47,669 09
TOTAL EXPENSES	\$1,447,182 50
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Grading and masonry	\$1,545 20
Bridging	6,144 35
Superstructure, including rails	15,910 87
Land, land damages and fences	81,042 92
Passenger and freight stations, wood-sheds and water stations	7,624 93
Engine-houses, car-sheds and turn-tables	21,387 47
Machine-shops	11,100 06
Wharf property and improvements	56,785 69
TOTAL FOR CONSTRUCTION	201,541 49
Locomotives (number, 6)	40,500 00
Passenger, mail and baggage cars (number, 6)	14,539 34
Freight and other cars (number, 144)	53,071 19
TOTAL FOR EQUIPMENT	108,110 53
Other expenditures charged to property account:—	
Underlying liens bought to perfect title, and to obtain possession of the H. P. & F. R.R.	3,565,050 65
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS, ...	\$3,874,702 67
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$24,185,792 73
Equipment account	1,108,410 00
Cash items:	172,669 45
Cash	\$68,904 42
Due from agents and companies	103,765 03
Other assets (<i>as follows</i>):	105,164 09
Materials and supplies	\$105,164 09
TOTAL ASSETS	\$25,572,036 27
LIABILITIES.	
Capital stock	\$20,000,000 00
Funded debt	4,708,000 00
Unfunded debt:	459,291 67
Interest unpaid	\$3,535 00
Notes payable	176,512 73
Mortgage note	125,000 00
Due to connecting roads and agents	154,244 03
Profit & Loss balance	404,744 51
TOTAL LIABILITIES	\$25,572,036 27

Present or Contingent Liabilities not included in the Balance Sheet.

The property is further encumbered by about \$100,000, bonds and notes (the exact amount cannot be given, as the extent of this company's liability has not been determined) issued under mortgages prior to the "Berdell mortgage."

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	993,410 miles.
Freight-train mileage	555,782 "
Switching-train mileage	126,707 "
Other train mileage	59,084 "
TOTAL TRAIN MILEAGE	1,734,983 "
Number of season-ticket passengers *	814,300
Number of local passengers (including season)	1,941,698
Number of through passengers	692,239
TOTAL NUMBER OF PASSENGERS	2,633,937
Local passenger mileage (local passengers carried one mile)	21,658,570
Through passenger mileage (through passengers carried one mile)	14,500,381
Number tons of local freight carried	375,864
Number tons of through freight carried	495,323
TOTAL NUMBER OF TONS FREIGHT CARRIED	871,187
Local freight mileage (tons local freight carried one mile)	9,479,858
Through freight mileage (tons through freight carried one mile), ...	27,174,811
Average weight of passenger trains (exclusive of passengers)	130
Average number of cars in passenger trains	5
Average weight of freight trains (exclusive of freight)	280 tons.
Average number of cars in freight train	20
Average number of persons employed	1,972

DESCRIPTION OF ROAD.

Length of main line of road from Boston to Waterbury, Conn.	149.66 miles.
Length of main line of road from Providence to Willimantic	58.50 "
Length of main line of road in Massachusetts	52 "
Length of main line of road in Connecticut	129.84 "
Length of main line of road in Rhode Island	26.32 "
Length of double track on main line	14.9 "
Same in Massachusetts	14.9 "
Branches owned by company: —	
Woonsocket Division (single track), length	33.75 "
Dedham Branch (single track), length	2 "
Southbridge Branch (single track), length	17.50 "
Ridge Hill Branch (single track), length	1.64 "
Dorrance-street track, Providence, R.I. (single track), length, ...	.82 "
Total length of branches owned by company	55.71 "
Total length of branches owned by company in Massachusetts	48.89 "
Total length of branches owned by company in Connecticut	5 "
Total length of branches owned by company in Rhode Island	1.82 "
Total length of road belonging to this company	263.87 "
Aggregate length of sidings and other tracks not above enumerated	60.16 "
Same in Massachusetts	26.88 "
Aggregate length of track, computed as single track	338.93 "
Same in Massachusetts	142.69 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 60 pounds.]	95.85 "

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Norwich & Worcester Railroad, length †	66.4 miles.
Rhode Island & Massachusetts Railroad, length	13.6 "
Rockville Railroad, length	4.4 "

* Reckoning *twelve passengers* per week for time of each season ticket.

† Operated for account of this corporation, but makes separate report.

Pawtucket Valley Railroad, length	3 miles.
Total length of above roads	87.4 "
Total length of above road in Massachusetts	24.02 "
Total length of above roads in other States:—	
In Connecticut	53.40 "
In Rhode Island	9.98 "
Total miles of road operated by this company*	284.87 "
Total miles of road operated by this company in Massachusetts,*	107.51 "
Number of stations in Massachusetts on all roads operated by this company	66
Number of telegraph offices in same	14
Number of stations on all roads owned by this company	125
Same in Massachusetts	57
EQUIPMENT.	
Number of locomotives leased, 2; owned, 76	78
Number of passenger cars leased, 2; owned, 107	109
Number of baggage, mail and express cars leased, 1; owned, 24	25
Number of parlor or sleeping cars owned, 2	2
Number of freight cars (basis of 8 wheels) owned, 815	815
Number of other cars owned, 257	257

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	—	—	—	—	—	—	—
Employés	3	6	—	—	3	6	4	6
Others	—	—	6	2	6	2	7	5

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 1, 1878.—Lyman Howard, trespasser, intoxicated and walking on track, between East Webster and Webster, fell in front of train, had one leg cut off, and died soon after.

October 18, 1878.—Robert Howe, brakeman, fell from top of freight train, was run over and killed, near Walpole, Mass.

November 28, 1878.—Lewis Warner, employé, while coupling cars at South Boston, had one rib fractured.

November 28, 1878.—James Gately, employé, while switching cars at stock-yards near Readville, Mass., had foot caught between draw-bars and slightly hurt.

January 16, 1879.—C. F. Searle, brakeman, fell from train and was killed near Islington, Mass.

February 25, 1879.—R. P. Cole, employé, while switching in freight yard at Boston, had arm caught between dead-woods and broken.

April 7, 1879.—Richard Duffy, employé, while coupling freight cars in yard in Boston, had his hand crushed.

May 10, 1879.—Henry F. Cushing, trespasser, walking on track near Hyde Park, Mass., was struck by train and killed.

June 13, 1879.—John H. Curry, trespasser, walking on track near Franklin, Mass., was struck by a train and slightly injured.

* Not including Norwich & Worcester Railroad.

June 21, 1879. — A. W. Scott, brakeman, while coupling cars at South Boston, had one finger on right hand crushed.

July 11, 1879. — Rufus P. Cole, conductor, struck by bridge near Islington, Mass., knocked off train, and was run over. Died at City Hospital.

July 15, 1879. — Dennis Long, trespasser, lying side the track near Mill River Junction, Mass., was struck by train and slightly hurt.

July 18, 1879. — James Morris, Sr., and James Morris, grandson, trespassers, walking on track at South Boston, were struck by train, run over and killed.

August 8, 1879. — A woman trespasser, name unknown, was lying near track at Blackstone, Mass., struck by freight train and killed.

August 14, 1879. — James Carroll, brakeman, was blown from top of train near Dorchester, Mass., and slightly injured.

August 7, 1879. — The dead body of Margaret Murphy was found lying beside the track, between Reservoir and Chestnut Hill Stations, shortly after the passage of the 9.35 P.M. train.

NAME AND RESIDENCE OF OFFICERS.

William T. Hart, *President*. Charles P. Clark, *Vice-President and General Manager*. H. M. Britton, J. T. McManus, E. H. Tucker and L. W. Palmer, *Superintendents*. George H. Williams, *General Freight Agent*. A. C. Kendall, *General Passenger Agent*. George B. Phippen, *Treasurer*. S. W. Hatheway, *Clerk of Corporation*.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William T. Hart, Boston, Mass. Joseph K. Baker, Dennis, Mass. LeGrand B. Cannon, New York, N.Y. Samuel A. Carlton, Boston, Mass. John Goldthwait, Boston, Mass. R. Suydam Grant, New York, N.Y. Lewis Hecht, Boston, Mass. Frederick J. Kingsbury, Waterbury, Conn. Jesse Metcalf, Providence, R.I. George S. Moulton, Willimantic, Conn. Thomas Nickerson, Newton Centre, Mass. Gorham P. Pomroy, Providence, R.I. George M. Rice, Worcester, Mass. James Roosevelt, New York, N.Y. James Sturgis, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

NEW YORK & NEW ENGLAND RAILROAD COMPANY,
BOSTON, MASS.

WM. T. HART,
J. K. BAKER,
S. A. CARLTON,
FREDERICK J. KINGSBURY,
JAMES STURGIS,
GEO. S. MOULTON,
LEWIS HECHT,
JOHN GOLDTHWAIT,

Directors.

GEO. B. PHIPPEN,

Treasurer.

H. M. BRITTON,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, SS. BOSTON, October 28, 1879. Then personally appeared William T. Hart, J. K. Baker, S. A. Carlton, Frederick J. Kingsbury, James Sturgis, George S. Moulton, Lewis Hecht, John Goldthwait, George B. Phippen and H. M. Britton, and severally made oath to the truth of the foregoing statement by them subscribed.

SIMON W. HATHEWAY,

Justice of the Peace.

GENERAL INFORMATION.	
Maximum weight of locomotives in working order . . .	42 tons.
Average weight of locomotives in working order . . .	29½ "
Maximum weight of tenders full of fuel and water . . .	27 "
Average weight of tenders full of fuel and water . . .	22 "
Maximum weight of passenger cars . . .	22 "
Average weight of passenger cars . . .	17 "
Average weight of mail and baggage cars . . .	15 "
Average weight of 8-wheel box freight cars . . .	1,700 lbs.
Average weight of 4-wheel box freight cars . . .	7,000 "
Average weight of 8-wheel platform cars . . .	15,800 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender, . . .	43 ft. 3 in.
Total length of heaviest engine and tender over all . . .	53 " 5 "
Number of locomotives equipped with train-brake . . .	50
[Kind of brake: Westinghouse, 22; Vacuum, 28.]	
Number of cars equipped with train-brake . . .	134
[Kind of brake: Westinghouse, 50; Vacuum, 56; both, 28.]	
Number of passenger cars with Miller platform and buffer . . .	132

BRIDGES BUILT WITHIN THE YEAR IN MASSACHUSETTS.

LOCATION.	KIND.	MATERIAL.	LENGTH.	WHEN BUILT.
Boston Flats . . .	Trestle,	Wood, new,	1785 feet.	November, 1878.
Readville . . .	Girder,	Renewed Iron,	58 feet.	November, 1878.
Newton Centre . . .	Highway,	Renewed Wood,	-	December, 1878.
Chester Park . . .	Howe Truss,	Renewed Wood,	108 feet.	April, 1879.
Blackstone . . .	Howe Truss,	Renewed Wood,	111 feet.	May, 1879.
Millville . . .	Howe Truss,	Renewed Wood,	135 feet.	June, 1879.
Ridge Hill . . .	Highway,	New Wood,	-	July, 1879.
Dedham Branch . . .	Highway,	Renewed Wood,	-	August, 1879.
Islington . . .	Highway,	Renewed Wood,	-	September, 1879.
Number of spans of bridges, of 25 feet and upward . . .				45
Number of iron bridges (aggregate length, 278 feet) . . .				5
Number of wooden bridges (aggregate length, 6,495 feet) . . .				66
Number of crossings of highways at grade . . .				98
Number of crossings of highways over railroad . . .				42
Number of crossings of highways under railroad . . .				30
Number of highway bridges 18 feet above track . . .				16
Number of highway bridges less than 18 feet above track . . .				28
Number of crossings at which gates or flagmen are maintained, . . .				22
Number of crossings at which there are neither electric signals, gates nor flagmen . . .				76
Number of railroad crossings at grade: . . .				2*
Boston, Clinton, Fitchburg & New Bedford, at Walpole.				
Boston, Clinton, Fitchburg & New Bedford, at Medfield.				

* The main line also crosses the Norwich & Worcester Division at Webster, and by switch at Putnam.

Number of railroad crossings over other railroads: . . .	3
Boston & Providence Railroad, at Readville.	
Providence & Worcester Railroad, near Blackstone.	
Woonsocket Division, at Mill River Junction.	
Number of railroad crossings under other railroads: . . .	2
Old Colony Railroad, at South Boston.	
Maine Line, at Mill River Junction.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .	2.71 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads . . .	1.94 “
Average rate of fare per mile for season-ticket passengers * . . .	0.86 “
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . . .	2.15 “
Average rate of local freight per ton per mile on roads operated by this company . . .	5.14 “
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads . . .	1.99 “

RELATING TO PASSENGERS.

Passengers to Boston (including season) * . . .	511,100
Passengers from Boston (including season) * . . .	587,333
Season-ticket passengers to and from Boston * . . .	255,128

CAPITAL STOCK.†

Capital stock authorized by charter . . .	\$20,000,000 00
Capital stock authorized by votes of company . . .	20,000,000 00
Capital stock issued (number of shares, 61,360, and Berdell bonds entitling holders of same to 138,640 shares.) . . .	
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. . .	\$20,000,000 00
Total number of stockholders (not including Berdell bondholders) . . .	344
Number of stockholders in Massachusetts (not including Berdell bondholders) . . .	304
Amount of stock held in Massachusetts (not including Berdell bonds) . . .	\$5,869,800 00

DEBT.

Funded debt, as follows:—

Mortgage bonds, due January 1, 1905, rate of interest 7 per cent . . .	\$4,708,000 00
Interest paid on same during year . . .	\$229,525 10

* Reckoning *twelve passengers* per week for time of each season ticket.

† The capital stock is fixed by the terms of the Berdell mortgage, B., H. & E. R.R. (under which this company was organized and obtained possession), at the above sum of \$20,000,000.00, being the amount of “Berdell bonds” then outstanding.

REPORT OF THE NEW YORK, NEW HAVEN AND HARTFORD RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$3,933,595 14
Total expense (including taxes)	2,241,935 33
Net income	1,691,659 81
Rentals (specifying amount to each company):	130,000 00
Shore Line Railway, \$100,000, charged against the receipts of that company, operated by this company as the Shore Line Division, and accounts kept separate.	
Harlem River & Port Chester Railroad, \$130,000 (interest on bonds issued).	
Dividends declared (10 per cent)	1,550,000 00
Balance for the year (surplus)	11,659 81
Balance at commencement of year	2,118,637 47
Balance September 30, 1879 (surplus)	2,130,297 28
ANALYSIS OF EARNINGS.	
From local passengers	\$1,368,240 46
through passengers (to and from other roads)	774,011 66
express and extra baggage	174,584 27
mails	103,644 98
<i>Total earnings from passenger department</i>	2,420,481 37
From local freight	587,399 92
through freight (to and from other roads)	884,438 76
other sources freight department	20,422 70
<i>Total earnings from freight department</i>	1,492,261 38
TOTAL TRANSPORTATION EARNINGS	3,912,742 75
Income from all other sources:—	
Interest	20,852 39
TOTAL INCOME FROM ALL SOURCES	\$3,933,595 14
ANALYSIS OF EXPENSES.	
Taxes	\$221,020 50
General salaries, office expenses and miscellaneous	47,045 97
Insurance	4,338 37
Telegraph expenses	2,420 00
Repairs of road	97,136 08
Steel rails	3,786 81
[Number of tons laid, 90.]	
New ties	43,732 18
[Number laid, 104,494.]	
Repairs of bridges	32,129 36
Repairs of buildings	48,156 25
Repairs of machine-shops and machinery	10,632 22
Repairs of fences, road crossings and signs	1,730 59
Repairs of locomotives	80,918 52

Fuel, locomotive power	\$224,968 04
Water and water stations	16,233 80
Fuel for cars, stations, shops and stationary engines	11,508 00
Oil and waste	32,851 32
Switchmen, watchmen, flag and signal men	98,451 73
Repairs of passenger, mail and baggage cars	118,462 93
Damages and gratuities to passengers	11,186 95
Salaries, wages and incidentals of passenger trains	228,830 62
Salaries, wages and incidentals of passenger stations	321,057 10
Repairs of freight cars	31,660 23
New freight cars	78,677 00
Damages and gratuities, freight	10,605 10
Salaries, wages and incidentals of freight trains	129,410 05
Salaries, wages and incidentals of freight stations	284,559 53
Freight-car mileage (debit balances)	50,426 08
TOTAL EXPENSES	\$2,241,935 33

Balance Sheet September 30, 1879.

ASSETS.	
Construction account	\$12,889,584 40
Equipment account	2,154,454 71
Other permanent investments:	688,962 98
Real estate*	\$560,274 67
Docks and wharves*.	128,688 31
Cash items (<i>as follows</i>):	1,632,476 35
Cash	\$526,337 61
Bills receivable	882,729 67
Due from agents and companies	223,409 07
Other assets:	524,536 02
Materials and supplies	\$326,945 95
Shore Line Division	43,489 08
Debit balance	154,100 99
TOTAL ASSETS	\$17,890,014 46
LIABILITIES.	
Capital stock	\$15,500,000 00
Unfunded debt:	259,717 18
Notes payable	\$3,000 00
Vouchers and accounts	256,717 18
Profit & Loss balance	2,130,297 28
TOTAL LIABILITIES	\$17,890,014 46

Present or Contingent Liabilities not included in the Balance Sheet.

Bonds guaranteed by this company:	\$2,000,000 00
Harlem River & Port Chester Railroad.	

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	1,332,291 miles.
Freight-train mileage	643,029 "
Switching-train mileage	255,380 "
Other train mileage	59,571 "
TOTAL TRAIN MILEAGE	2,290,271 "

* In Massachusetts, \$142,914.10; in Connecticut, \$417,360.57.

Number of season-ticket passengers *	1,044,784
Number of local passengers (including season)	3,128,499
Number of through passengers	459,400
TOTAL NUMBER OF PASSENGERS	3,557,899
Local passenger mileage (local passengers carried one mile)	72,580,507
Through passenger mileage (through passengers carried one mile)	30,532,936
Number of tons of local freight carried	454,700
Number of tons of through freight carried	754,930
TOTAL NUMBER OF TONS FREIGHT CARRIED	1,209,630
Local freight mileage (tons local freight carried one mile)	14,578,611
Through freight mileage (tons through freight carried one mile), ...	48,608,868
Average weight of passenger trains (exclusive of passengers)	160 tons.
Average number of cars in passenger trains	6
Average weight of freight trains (exclusive of freight)	290 tons.
Average number of cars in freight train	25
Average number of persons employed	1,954

DESCRIPTION OF ROAD.

Length of main line of road from Harlem Junction to Springfield, Mass.	123 miles.
Length of main line of road in Massachusetts	5.87 "
Length of main line of road in Connecticut	102 "
Length of main line of road in New York	15.13 "
Length of double track on main line	123 "
Same in Massachusetts	5.87 "
Branches owned by company:—	
New Britain (single track), length	3 "
Middletown (single track), length	10 "
Suffield (single track), length	4.5 "
Total length of branches owned by company	17.5 "
Total length of branches owned by company in Connecticut	17.5 "
Total length of road belonging to this company	140.5 "
Aggregate length of sidings and other tracks not above enumerated	57 "
Same in Massachusetts	4.35 "
Aggregate length of track, computed as single track	320.5 "
Same in Massachusetts	16.09 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 60 lbs.]	244.79 "

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Shore Line Railway (single track), length	50 miles.
Harlem River & Port Chester Railroad (double track), length	11.8 "
Total length of above roads	61.8 "
Total length of above roads in Connecticut	50 "
Total length of above roads in New York	11.8 "
Total miles of road operated by this company †	152.3 "
Total miles of road operated by this company in Massachusetts, ...	5.87 "
Number of stations in Massachusetts on all roads operated by this company	3
Number of telegraph offices in same	1
Number of stations on all roads owned by this company	57
Same in Massachusetts	3

EQUIPMENT.

Number of locomotives	94
Number of passenger cars	184
Number of baggage, mail and express cars	60
Number of parlor or sleeping cars	18
Number of freight cars (basis of 8 wheels)	1,375
Number of other cars	8

* Reckoning twelve passengers per week for time of each season ticket.

† Not including Shore Line Division, which makes separate report.

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .	-	-	-	-	-	-	-	6
Employés .	-	-	-	1	-	-	7	15
Others .	-	-	-	1	-	1	28	12

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

July 23, 1879. — John Harrington was struck by train No. 10, on Howard-street Crossing, Springfield, attempting to cross track ahead of train; one leg broken.

NAME AND RESIDENCE OF OFFICERS.

George H. Watrous, *President*, New Haven, Conn. E. M. Reed, *Vice-President*, New Haven, Conn. E. C. Robinson, *Chief Clerk*, New York. Charles Rockwell, *General Freight Agent*, New Haven, Conn. C. T. Hempstead, *General Passenger Agent*, New York. William L. Squire, *Treasurer*, New York. E. J. Sanford, *Clerk of Corporation*, New Haven, Conn.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

G. H. Watrous, New Haven, Conn. Henry Robinson, Hartford, Conn. E. M. Reed, New Haven, Conn. E. H. Trowbridge, New Haven, Conn. W. D. Bishop, Bridgeport, Conn. N. Wheeler, Bridgeport, Conn. Wilson G. Hunt, New York. C. M. Pond, Hartford, Conn. George N. Miller, New York. Augustus Schell, New York. C. W. Chapin, Springfield, Mass. W. H. Vanderbilt, New York. A. R. Van Nest, New York.

PROPER ADDRESS OF THE COMPANY.

NEW YORK, NEW HAVEN & HARTFORD RAILROAD,
GRAND CENTRAL DEPOT, 42D STREET AND 4TH AVENUE, NEW YORK, N.Y.

GEORGE H. WATROUS,
E. M. REED,
WILSON G. HUNT,
GEORGE N. MILLER,
ABRAM R. VAN NEST,
N. WHEELER,
CHARLES M. POND,
E. H. TROWBRIDGE,

Directors.

STATE OF NEW YORK.

NEW YORK, ss. NEW YORK, November 8, 1879. Then personally appeared G. H. Watrous, E. M. Reed, Wilson G. Hunt, George N. Miller, Abram R. Van Nest, N. Wheeler, Charles M. Pond and E. H. Trowbridge, and severally made oath to the truth of the foregoing statement by them subscribed.

E. C. ROBINSON,

Notary Public, N. Y. Co.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	35.13 tons.
Average weight of locomotives in working order . . .	32. "
Maximum weight of tenders full of fuel and water . . .	22.50 "
Average weight of tenders full of fuel and water . . .	22. "
Maximum weight of passenger cars . . .	57,030 lbs.
Average weight of passenger cars . . .	36,000 "
Average weight of mail and baggage cars . . .	30,000 "
Average weight of 8-wheel box freight cars . . .	18,000 "
Average weight of 4-wheel box freight cars . . .	7,000 "
Average weight of 8-wheel platform cars . . .	12,500 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender, . . .	45 feet.
Total length of heaviest engine and tender over all . . .	50 "
Number of locomotives equipped with train-brake . . .	60
[Kind of brake: Westinghouse.]	
Number of cars equipped with train-brake . . .	261
[Kind of brake: Westinghouse.]	
Number of passenger cars with Miller platform and buffer . . .	262
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities (<i>specifying location of same</i>):—	
From Harlem River to New Rochelle, number of miles . . .	11.8
Number of spans of bridges, of 25 feet and upwards . . .	1
Number of iron bridges (aggregate length, 48 feet) . . .	1
Stone arch bridges (aggregate length, 86 feet) . . .	1
Number of crossings of highways at grade . . .	9
Number of crossings of highways under railroads . . .	2
Number of crossings at which there are neither electric signals, gates nor flagmen . . .	9

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company (excursion) . . .	2.40 cents.
Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company (regular) . . .	2.76 "
Average rate of fare per mile <i>received</i> from passengers to and from other roads . . .	2.73 "
Average rate of fare per mile for season-ticket passengers* . . .	0.66 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . . .	2.26 "
Average rate of local freight per ton per mile on roads operated by this company . . .	5.18 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads . . .	1.85 "

CAPITAL STOCK.

Capital stock authorized by charter . . .	\$15,500,000 00	
Capital stock authorized by votes of company . . .	15,500,000 00	
Capital stock issued (number of shares, 155,000); amount paid in, . . .		\$15,500,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. . .		15,500,000 00
Total number of stockholders . . .	3,215	
Number of stockholders in Massachusetts . . .	407	
Amount of stock held in Massachusetts . . .	\$2,188,900 00	

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

NORTH BROOKFIELD RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston & Albany Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$2,462 66
Total expense (taxes for 1879 unpaid)	15 17
Net income	2,447 49
Dividends declared (2 per cent)	2,000 00
Balance for the year (surplus)	447 49
Balance at commencement of year (surplus)	4,971 25
Balance September 30, 1879	5,418 74
ANALYSIS OF EARNINGS.	
Rents for use of road of B. & A. R.R. Co.	\$2,383 93
Income from all other sources:	78 73
Rent of Depot Hall	\$75 00
Interest on deposits	3 73
TOTAL INCOME FROM ALL SOURCES	\$2,462 66
ANALYSIS OF EXPENSES.	
General salaries, office expenses and miscellaneous	\$5 17
Insurance	10 00
TOTAL EXPENSES	\$15 17
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Land, land damages and fences	\$650 00
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$105,293 39
Iron safe	75 00
Cash	50 35
TOTAL ASSETS	\$105,418 74
LIABILITIES.	
Capital stock	\$100,000 00
Profit & Loss balance	5,418 74
TOTAL LIABILITIES	\$105,418 74

DESCRIPTION OF ROAD.	
Length of main line of road from N. Brookfield to E. Brookfield,	4.160 miles.
Length of main line of road in Massachusetts	4.160 "
Aggregate length of sidings and other tracks not above enumerated	.490 "
Same in Massachusetts	.490 "
Aggregate length of track, computed as single track	4.650 "
Same in Massachusetts	4.650 "
Number of stations on all roads owned by this company . . .	1
Same in Massachusetts	1

NAME AND RESIDENCE OF OFFICERS.

Bonum Nye, *President*, North Brookfield, Mass. Alden Batcheller, *Vice-President*, North Brookfield, Mass. John B. Dewing, *Treasurer*, North Brookfield, Mass. Theodore C. Bates, *Clerk of Corporation*, North Brookfield, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

A. H. Batcheller, Boston, Mass. Alden Batcheller, North Brookfield, Mass. Freeman Walker, North Brookfield, Mass. Theodore C. Bates, North Brookfield, Mass. Bonum Nye, North Brookfield, Mass. John B. Dewing, North Brookfield, Mass. J. E. Porter, North Brookfield, Mass.

PROPER ADDRESS OF THE COMPANY.

NORTH BROOKFIELD RAILROAD COMPANY,
NORTH BROOKFIELD, MASS.

BONUM NYE,
ALDEN BATCHELLER,
FREEMAN WALKER,
THEODORE C. BATES,
J. EDWARDS PORTER,
JOHN B. DEWING,
Directors.
JOHN B. DEWING,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, SS. December 1, 1879. Then personally appeared Bonum Nye, Alden Batcheller, Freeman Walker, Theodore C. Bates, J. Edwards Porter and John B. Dewing, and severally made oath to the truth of the foregoing statement by them subscribed.

Before me,

HIRAM KNIGHT,

Justice of the Peace.

GENERAL INFORMATION.

Number of wooden bridges (aggregate length, 120 feet) . . .	1
Number of crossings of highways at grade	10
Number of crossings at which there are neither electric signals, gates nor flagmen	10

CAPITAL STOCK.

Capital stock authorized by charter	\$100,000 00	
Capital stock authorized by votes of company	100,000 00	
Capital stock issued (number of shares, 1,000); amount paid in,		\$100,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. . .		100,000 00
Total number of stockholders	52	
Number of stockholders in Massachusetts	52	
Amount of stock held in Massachusetts	\$100,000 00	

REPORT

OF THE

NORWICH & WORCESTER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$714,894 24
Total expense (including taxes)	391,371 72
Net income	323,522 52
Rentals:	36,000 00
New London Northern Railroad Company	\$36,000 00
Interest accrued during the year:	24,029 42
On funded debt	24,000 00
On other debt	29 42
Dividends declared (10 per cent)	259,780 00
Balance for the year (surplus)	3,713 10
Balance at commencement of year	845,524 73
Balance September 30, 1879	849,237 83
ANALYSIS OF EARNINGS.	
From local passengers	\$97,428 76
through passengers (to and from other roads)	81,013 88
express and extra baggage	14,316 20
mails	4,818 08
<i>Total earnings from passenger department</i>	197,576 92
From local freight	288,082 90
through freight (to and from other roads)	180,931 69
<i>Total earnings from freight department</i>	469,014 59
TOTAL TRANSPORTATION EARNINGS	666,591 51
Income from all other sources	48,302 73
New York & New England Railroad Co.	\$21,064 73
Rental	238 00
Norwich & New York Trans. Co. dividend	27,000 00
TOTAL INCOME FROM ALL SOURCES	\$714,894 24
ANALYSIS OF EXPENSES.	
Taxes	\$34,999 43
General salaries, office expenses and miscellaneous	11,834 48
Insurance	899 79
Telegraph expenses	1,261 09
Repairs of road	48,994 79
Iron rails	10,560 00
New ties	10,941 18
Repairs of bridges	4,994 09
Repairs of buildings	9,245 52
Repairs of machine-shops and machinery	2,711 65
Repairs of fences, road crossings and signs	216 21
Removing ice and snow	775 13
Repairs of locomotives	14,780 53
New locomotives	8,429 94
Fuel, locomotive power	39,442 94
Water and water stations	1,213 29
Fuel for cars, stations, shops and stationary engines	2,229 85
Oil and waste	4,556 09

Switchmen, watchmen, flag and signal men	\$9,251 33
Repairs of passenger, mail and baggage cars	10,554 69
Damages and gratuities to passengers	785 17
Salaries, wages and incidentals of passenger trains	25,956 49
Salaries, wages and incidentals of passenger stations	17,078 75
Passenger-car mileage (debit balances)	5,894 59
Repairs of freight cars	31,249 75
Damages and gratuities, freight	560 60
Salaries, wages and incidentals of freight trains	39,826 24
Salaries, wages and incidentals of freight stations	41,521 48
Freight-car mileage (debit balances)	10,711 09
TOTAL EXPENSES	\$391,371 72
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Passenger and freight stations, wood-sheds and water stations	\$2,685 00
Engine-houses, car-sheds and turn-tables	13,514 87
Viaduct at Worcester	1,747 87
Laurel Hill Tunnel and iron bridge	846 50
TOTAL FOR CONSTRUCTION	\$18,794 24
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$3,224,229 64
Equipment account	179,750 67
Other permanent investments (<i>as follows</i>):	273,037 08
Lands in Massachusetts	\$3,037 08
Stock of Norwich & New York Trans. Co.	270,000 00
Cash items:	149,882 76
Cash	\$86,945 03
Bills receivable	49,990 68
Due from agents and companies	12,947 05
Other assets:	35,401 76
Materials and supplies	\$35,401 76
TOTAL ASSETS	\$3,862,301 91
LIABILITIES.	
Capital stock	\$2,604,400 00
Funded debt	400,000 00
Unfunded debt:	8,664 08
Dividends unpaid	\$3,074 00
Vouchers and accounts	5,590 08
Profit & Loss balance (if surplus)	849,237 83
TOTAL LIABILITIES	\$3,862,301 91
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	195,196 miles.
Freight-train mileage	239,471 "
Switching-train mileage	23,457 "
Other train mileage	11,821 "
TOTAL TRAIN MILEAGE	469,945 "
Number of season-ticket passengers*	22,362
Number of local passengers (including season)	221,806
Number of through passengers	158,420
TOTAL NUMBER OF PASSENGERS	380,226
Local passenger mileage (local passengers carried one mile)	3,123,397
Through passenger mileage (through passengers carried one mile), ...	5,224,600

* Reckoning *twelve passengers* per week for time of each season ticket.

Number of tons of local freight carried	168,149
Number of tons through freight carried	235,919
TOTAL NUMBER OF TONS FREIGHT CARRIED	404,068
Local freight mileage (tons local freight carried one mile)	6,292,616
Through freight mileage (tons through freight carried one mile), ...	8,861,127
Average weight of passenger trains (exclusive of passengers)	97
Average number of cars in passenger trains	3
Average weight of freight trains (exclusive of freight)	239 tons.
Average number of cars in freight train	25
Average number of persons employed	420

DESCRIPTION OF ROAD.

Length of main line of road from Norwich to Worcester	59.4 miles.
Length of main line of road in Massachusetts	17.4 "
Length of main line of road in Connecticut	42. "
Branches owned by company:—	
Allyn's Point extension (single track), length	7 "
Total length of branches owned by company in Connecticut	7 "
Total length of road belonging to this company	66.4 "
Aggregate length of sidings and other tracks not above enumerated	13.9 "
Same in Massachusetts	4.1 "
Aggregate length of track, computed as single track	80.3 "
Same in Massachusetts	21.5 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 56 and 60 pounds.]	6.8 "
Total miles of road operated by this company	66.4 "
Total miles of road operated by this company in Massachusetts, ...	17.4 "
Number of stations in Massachusetts on all roads operated by this company	9
Number of telegraph offices in same	1
Number of stations on all roads owned by this company	24
Same in Massachusetts	9

EQUIPMENT.

Number of locomotives	20
Number of passenger cars	10
Number of baggage, mail and express cars	7
Number of freight cars (basis of 8 wheels)	573
Number of other cars—snow plough	1

NAME AND RESIDENCE OF OFFICERS.

F. H. Dewey, *President*, Worcester, Mass. P. St. M. Andrews, *Superintendent*, Norwich, Conn. George A. Harris, *Freight Agent*, Norwich, Conn. Edward T. Clapp, *Passenger Agent*, Norwich, Conn. G. L. Perkins, *Treasurer*, Norwich, Conn. Edward T. Clapp, *Clerk of Corporation*, Norwich, Conn.

PROPER ADDRESS OF THE COMPANY.

NORWICH & WORCESTER RAILROAD COMPANY,
NORWICH, CONN.

FRANCIS H. DEWEY,
CHAS. W. SMITH,
GEO. W. GILL,
EDWARD L. DAVIS,
Directors.
G. L. PERKINS,
Treasurer.
P. ST. M. ANDREWS,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER COUNTY, ss. November 5, 1879. Then personally appeared the within-named George W. Gill and Edward L. Davis, and severally made oath to the truth of the foregoing statement by them subscribed according to their best knowledge and belief.

JOSEPH E. DAVIS,
Justice of the Peace.

STATE OF CONNECTICUT.

NEW LONDON COUNTY, ss. NORWICH, November 4, 1879. Then personally appeared George L. Perkins, Treasurer, and P. St. M. Andrews, Superintendent, and severally made oath to the truth of the foregoing statement by them subscribed.

EDWIN A. TRACY,
Notary Public.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER COUNTY, ss. November 5, 1879. Then personally appeared before me the above-named Francis H. Dewey, and made oath to the truth of the foregoing statement by him subscribed, according to the best of his knowledge and belief.

HAMILTON B. STAPLES,
Justice of the Peace.

WORCESTER COUNTY, ss. November 5, 1879. Then personally appeared the above-named Charles W. Smith, and made oath to the truth of the foregoing statement by him subscribed, according to his best knowledge and belief.

CHARLES M. MILES,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	33 tons.
Average weight of locomotives in working order . . .	27 "
Maximum weight of tenders full of fuel and water . . .	22 "
Average weight of tenders full of fuel and water . . .	22 "
Average weight of passenger cars . . .	37,500 lbs.
Average weight of mail and baggage cars . . .	32,000 "
Average weight of 8-wheel box freight cars . . .	16,600 "
Average weight of 4-wheel box freight cars . . .	8,600 "
Average weight of 8-wheel platform cars . . .	15,500 "
Average weight of 4-wheel coal cars . . .	9,000 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	40 feet 8 in.
Total length of heaviest engine and tender over all . . .	49 " 6 "
Number of cars equipped with train-brake . . .	4
[Kind of brake: Smith's vacuum; Lewis & Spaulding's noiseless vacuum.]	
Number of passenger cars with Miller platform and buffer .	10
Number of spans of bridges, of 25 feet and upwards . .	4
Number of iron bridges (aggregate length, 271 feet) . .	3
Number of wooden bridges (aggregate length, 166 feet) . .	2
Number of crossings of highways at grade . . .	29
Number of crossings of highways over railroad . . .	2
Number of crossings of highways under railroad . . .	4

Number of highway bridges 18 feet above track	2
Number of crossings at which gates or flagmen are maintained, ...	9
Number of crossings at which there are neither electric signals, gates nor flagmen	20
Number of railroad crossings at grade (specifying each):	2
New York & New England Railroad at Webster.	
Boston & Albany Railroad at Worcester	
RATES OF FARE, ETC.	
Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	3.2 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads.	1.55 "
Average rate of fare per mile for season-ticket passengers *	0.9 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	2.13 "
Average rate of local freight per ton per mile on roads operated by this company	4.57 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	2.04 "
CAPITAL STOCK.	
Capital stock authorized by charter	\$3,825,000 00
Capital stock issued (number of shares, 26,044); amount paid in, ...	2,604,400 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	2,604,400 00
Total number of stockholders	683
Number of stockholders in Massachusetts	554
Amount of stock held in Massachusetts	\$1,943,100 00
DEBT.	
Funded debt, as follows:—	
Bonds due March 1, 1897, rate of interest 6 per cent	\$400,000 00
Interest paid on same during year	\$24,000 00
TOTAL AMOUNT OF FUNDED DEBT	\$400,000 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT
OF THE
OCEAN TERMINAL RAILROAD COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.
[In process of construction.]

PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Engineering, agencies, salaries and other expenses during construction	\$330 52
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$330 52
Cash	1,669 48
TOTAL ASSETS	\$2,000 00
LIABILITIES.	
Capital stock	\$2,000 00

NAME AND RESIDENCE OF OFFICERS.

D. N. Skillings, *President*, Winchester, Mass. D. N. Skillings, Jr., *Treasurer*, Winchester, Mass. James E. Stone, *Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

D. N. Skillings, Winchester, Mass. Joseph E. Bartlett, Boston, Mass. James M. Stone, Boston, Mass. Amos Stone, Everett, Mass. John Stimson, Rockport, Mass. Charles Collier, Chelsea, Mass. William P. Blake, Boston, Mass. Frank N. Thayer, Boston, Mass. Lansing Millis, Boston, Mass.

PROPER ADDRESS OF THE COMPANY.

OCEAN TERMINAL RAILROAD COMPANY,
No. 5 KILBY ST., BOSTON, MASS.

D. N. SKILLINGS,
J. E. BARTLETT,
JAMES M. STONE,
CHARLES COLLIER,
JOHN STIMSON,
WILLIAM P. BLAKE,
AMOS STONE,
FRANK N. THAYER,
Directors.
DAVID N. SKILLINGS, JR.,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. BOSTON, October 15, 1879. Then personally appeared D. N. Skillings, J. E. Bartlett, James M. Stone, Charles Collier, John Stimson, William P. Blake, Amos Stone, Frank N. Thayer and D. N. Skillings, Jr., and severally made oath to the truth of the foregoing statement by them subscribed.

CHAS. WHITNEY,

Justice of the Peace.

GENERAL INFORMATION.		
CAPITAL STOCK.		
Capital stock authorized by charter . . .	\$10,000 00	
Capital stock authorized by votes of company . .	10,000 00	
Capital stock paid in on shares not issued (number shares, 100),		\$2,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. .		2,000 00
Total number of stockholders	26	
Number of stockholders in Massachusetts	26	
Amount of stock held in Massachusetts	\$2,000 00	

REPORT
OF THE
OLD COLONY RAILROAD COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$2,862,575 24
Total expense (incl'g taxes and Wollaston accident, \$348,453.14),	2,147,606 06
Net income	714,969 18
Rentals:	243,048 60
B., C., F. & N. B. R.R. Co.	\$235,121 94
Boston & Lowell Railroad Company	2,400 00
Deficit in operation of Union Freight Railroad 12 months	5,526 66
Interest accrued during year:	390,268 81
On funded debt	\$363,375 00
On other debt	26,893 81
Surplus for the year	81,651 77
Balance at commencement of year	\$709,054 67
Deduct: Worthless bills at freight stations	1,772 00
Surplus at commencement of year as so changed	707,282 67
Surplus September 30, 1879	788,934 44
ANALYSIS OF EARNINGS.	
From local passengers	\$1,144,504 28
through passengers (to and from other roads)	349,263 96
express and extra baggage	93,706 93
mails	33,576 33
Total earnings from passenger department	1,621,051 50
From local freight	795,743 14
through freight (to and from other roads)	346,155 30
Total earnings from freight department	1,141,898 44
TOTAL TRANSPORTATION EARNINGS	2,762,949 94
Rents for use of road	2,400 00
Income from all other sources:	97,225 30
Rent of tenement houses, etc.	\$30,457 84
Interest and dividends on investments	13,409 60
Accretions to sinking fund	2,678 26
Premium on bonds sold	18,000 00
Gravel	13,701 28
Plympton and Myrick's Groves	1,558 48
South Boston and Somerset wharves discharging and wharfage	10,138 84
Train service on Fall River Railroad	7,281 00
TOTAL INCOME FROM ALL SOURCES	\$2,862,575 24

ANALYSIS OF EXPENSES.	
Taxes	\$91,922 59
General salaries, office expenses and miscellaneous	71,115 81
Insurance	7,530 00
Telegraph expenses	12,638 60
Repairs of road	233,506 64
Iron rails	5,277 38
[Number of tons laid, 211.]	
Steel rails including \$70,000 from improvement account	107,448 15
[Number of tons laid, 1,860.]	
New ties	62,781 45
[Number laid, 193,768.]	
Repairs of bridges and wharves	44,202 82
Repairs of buildings	64,668 12
Repairs of machine-shops and machinery	12,673 18
Repairs of fences, road crossings and signs	10,126 49
Removing ice and snow	839 40
Repairs of locomotives	68,947 20
Fuel, locomotive power	162,179 12
Water and water stations	12,085 99
Fuel for cars, stations, shops and stationary engines	12,319 48
Oil and waste	19,837 24
Switchmen, watchmen, flag and signal men	74,630 48
Repairs of passenger, mail and baggage cars	68,616 25
New passenger, mail and baggage cars	1,657 14
Damages and gratuities to passengers	341 90
Salaries, wages and incidentals of passenger trains	205,455 11
Salaries, wages and incidentals of passenger stations	100,530 94
Repairs of freight cars	48,565 04
Damages and gratuities, freight	1,115 12
Salaries, wages and incidentals of freight trains	126,057 72
Salaries, wages and incidentals of freight stations	149,662 44
Freight-car mileage (debit balances)	22,421 12
TOTAL EXPENSES	\$1,799,152 92
Wollaston accident:—	
Locomotives	\$4,127 00
Passenger cars	19,674 39
Personal injuries, etc.	324,651 75
	348,453 14
TOTAL (including accident)	\$2,147,606 06
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Land, land damages and fences	\$6,042 85
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS, ...	6,042 85
Property sold (or reduced in valuation on the books) and credited property accounts during the year:	71,550 00
Land sold	\$1,550 00
Improvement account	70,000 00
NET REDUCTION OF PROPERTY ACCOUNT FOR THE YEAR,	65,507 15
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$10,286,784 17
Equipment account	1,191,319 08
Other permanent investments (as follows):	1,492,882 54
Lands in Massachusetts	\$247,383 98
Lands in Rhode Island	40,100 00
Stock of Old Colony Steamboat Company	725,500 00
Stock of Nant. & C. C. Steamboat Company	15,340 83

Stock of Union Freight Railroad Company	\$79,014 42	
Bonds and stock of Fall River, Warren & Providence Railroad Company	348,605 43	
Dorchester & Milton Branch Railroad Company, ...	36,937 88	
Cash items:		\$633,759 17
Cash	\$301,068 76	
Bills receivable	214,939 50	
Due from agents and companies	117,750 91	
Other assets:		414,908 63
Materials and supplies	\$276,011 19	
Materials and supplies used in operating the Union Freight Railroad, to be returned at expiration of lease	22,463 75	
Sinking fund	67,559 07	
Debit balances	48,874 62	
TOTAL ASSETS		\$14,019,653 59
LIABILITIES.		
Capital stock		\$6,733,800 00
Funded debt		5,864,500 00
Unfunded debt:		632,419 15
Interest unpaid	\$16,602 50	
Dividends unpaid	1,890 41	
Notes payable	291,895 26	
Vouchers and accounts	322,030 98	
Profit & Loss balance		788,934 44
TOTAL LIABILITIES		\$14,019,653 59
MILEAGE, TRAFFIC, ETC.		
Passenger-train mileage		1,177,663 miles.
Freight-train mileage		593,687 "
Switching-train mileage		215,196 "
Other train mileage		30,362 "
TOTAL TRAIN MILEAGE		2,016,908 "
Number of season-ticket passengers*		1,103,434
Number of local passengers (including season)		3,897,908
Number of through passengers		721,728
TOTAL NUMBER OF PASSENGERS		4,619,636
Local passenger mileage (local passengers carried one mile)		51,307,736
Through passenger mileage (through passengers carried one mile)		21,497,502
Number of tons of local freight carried		734,549
Number of tons through freight carried		369,147
TOTAL NUMBER TONS FREIGHT CARRIED		1,103,696
Local freight mileage (tons local freight carried one mile)		26,531,480
Through freight mileage (tons through freight carried one mile), ...		15,918,886
Average weight of passenger trains (exclusive of passengers)		150 tons.
Average number of cars in passenger trains		6
Average weight of freight trains (exclusive of freight)		237½ tons.
Average number of cars in freight train		25
Average number of persons employed		1,953
DESCRIPTION OF ROAD.		
Length of main line of road from Boston to Plymouth, Provincetown and Newport, R.I.		249.89 miles.
Length of main line of road in Massachusetts		233.70 "
Length of main line of road in Rhode Island		16.19 "
Length of double track on main line		11.28 "

* Reckoning *twelve passengers* per week for time of each season ticket.

Same in Massachusetts	11.28 miles.
Branches owned by company:—	
Easton branch (single track), length	1.65 “
Shawmut branch (single track), length	2.39 “
Bridgewater branch (single track), length	7.08 “
Granite branch (single track), length	5.41 “
Hyannis branch (single track), length	5.05 “
Woods Holl branch (single track), length	17.54 “
Middleborough & Taunton branch (single track), length	8.04 “
Extension to Fall River, Warren & Providence (single track), length	2.16 “
Total length of branches owned by company	49.32 “
Total length of branches owned by company in Massachusetts, ...	49.32 “
Total length of road belonging to this company	299.21 “
Aggregate length of sidings and other tracks not above enumerated	67.30 “
Same in Massachusetts	65.33 “
Aggregate length of track, computed as single track	377.79 “
Same in Massachusetts	359.63 “
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 56 pounds.]	132.23 “

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Boston, Clinton, Fitchburg & New Bedford, length	151.45 miles.
Dorchester & Milton, length	3.30 “
Total length of above roads	154.75 “
Total length of above roads in Massachusetts	154.75 “
Total miles of road operated by this company	453.96 “
Total miles of road operated by this company in Massachusetts, ...	437.77 “
Number of stations in Massachusetts on all roads operated by this company	190
Number of telegraph offices in same	119
Number of stations on all roads owned by this company	136
Same in Massachusetts	131

EQUIPMENT.

Number of locomotives leased, 37; owned, 72	109
Number of passenger cars leased, 54; owned, 154	208
Number of baggage, mail and express cars leased, 27; owned, 28, ...	55
Number of parlor and coach cars leased, 1; owned, 4	5
Number of freight cars (basis of 8 wheels) leased, 822 ² ; owned, 1,024 ²	1,847

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	17	167	—	2	17	169	17	169
Employés	2	4	1	1	3	5	3	5
Others	—	—	11	9	11	9	13	9

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 8, 1878. — Derailment of an excursion train near Wollaston Heights, caused by the misplacement of switches and neglect to display the required signals by the conductor and engineer of the outward Newport local freight.

This accident occurred at about 7.20 P.M., and resulted in the death of seventeen passengers and two employés, and injuries to one hundred and sixty-six passengers and four employés, viz.:—

James Boyle, Michael Claffey, Bernard Collins, John Day, Edward Doherty, John Givrin, Alexander Green, John A. Hasey, John Linnehan, Thomas Mahoney, Charles H. Morgan, Patrick F. Reagan, W. C. Stevens, Cornelius Sullivan, Michael F. Wells, E. R. White and Margaret Faulkner, passengers; and Paul Crowley and James Gilfether, employés: 19 killed or fatally injured. John H. Carroll, John J. Day, Thomas F. Drohan, James Doherty, Patrick J. Foley, John C. Faulkner, William Frazer, Abraham Fenno, Edward Gill, Andrew Houghton, Richard Houghton, William J. Henry, Thomas McNulty, Edward Maguire, C. Otto Mammy, John Quinlan, John H. Rowen, John Wright, Thomas Cook, Michael Connolly, Thomas Conroy, Richard F. Condon, Stephen Davis, John Darley, James Fitzgerald, Joseph J. Flatley, John Hastin, Lawrence Kennedy, Thomas G. Keife, John J. McCormick, Michael M. Davly, Eugene O'Keife, John E. Owens, George E. Pike, O'Connell Ruffin, C. Reagan, John Blakie, Margaret Blakie, P. F. Reddy, Solomon Barnett, John H. Costello, Patrick J. Calnan, James J. Flynn, James Fitzgerald, Edward Franey, Dennis Kernigan, D. B. Kelley, John McDonough, George T. Neal, A. W. Pike, John Seavey, Dennis Dooley, Neil Doherty, John Flaherty, J. H. Griffin, Stephen J. Kelley, James M. Kilroy, James Meehan, John H. Murnan, James L. O'Connell, George E. Perkins, Johannes Veale, John Whalen, Thomas Whitney, Patrick Welch, George G. Kimball, Benjamin F. Langley, William H. Melaney, Michael Lynch, Frederick A. Winslow, John E. Haynes, James Carney, C. Leslie Miller, Thomas Herron, Thomas McMorro, William C. Browne, Henry McLaughlin, Timothy Donohue, John E. Welch, Michael A. Cahill, T. A. Dolan, John F. Gill, John Minehan, John Gallagher, Michael J. Mahoney, Charles A. Powers, John Brasell, William Faulkner, John J. Loan, William Carroll, Bernard J. Brogan, James M. Carvill, James C. Daley, Charles Monagle, James J. Creed, John Broderick, James S. Kingman, Daniel Gilfether, Thomas H. Jackman, James Henry Collins, Charles B. O'Connell, William R. Fogg, Thomas F. O'Neil, M. J. Henley, Beverley O. Kinnear, Charles V. Buntin, Henry Gormlay, C. A. Lindgreen, John Monohan, Eugene F. Shaw, John J. Connelly, Henry Anderson, Thomas C. Butler, William A. Callaher, Charles Clair, Bart. J. Cotter, Patrick Cannon, Con. Dugan, Garrett Fitzgerald, John Flanagan, Michael Foley, John T. Haviland, Edward F. Lalley, Patrick McLaughlin, Michael McTeecley, Thomas McLue, George G. Moore, P. Murray, Patrick O'Connor, Jr., S. D. O'Keefe, J. W. Richardson, Thomas F. Scanlan, M. H. Welch, Harry Clifford, Edgar Coombs, Robert J. Downey, William Holian, Jere. A. Sheehan, Joseph D. Smith, Michael Veale, J. M. Weaver, Charles F. Brackin, Agostine Leverone, Patrick O'Herne, John Barry, Patrick F. Gallivan, Richard M. Parker, Patrick J. Ryan, M. O. Kelley, Paul Butler, Benjamin I. Butler, Willis Farrington, Frank Curtis, John Divvers, Thomas H. Green, John E. Green, William Hammond, Timothy Harrington, Frederick C. Hills, Richard McManus, Damson McClinchy, James Mullally, John O'Brien, Charles Quigley, Walter Safford, John Taylor, passengers; and John C. Sanborn, William Crosson, Hiram Dennison and Frank W. Stickney, employés: 170 injured.

November 13, 1878. — Laura A. Belcher, in attempting to cross the track at "School House Crossing," between South Braintree and Randolph, in advance of an approaching train, was struck and slightly injured.

December 6, 1878. — Mrs. Timothy Toomey ran against a passing freight train

in Brockton, while she was chasing a pig, and, falling beside the rail, had an arm crushed.

December 11, 1878. — Edward Freel, intoxicated, and walking on track in Holbrook, was struck and fatally injured.

December 14, 1878. — Mrs. Lutz stepped from moving train at Sandwich, and had one foot crushed.

December 14, 1878. — William O'Brien, found dead by the track near South Weymouth. Supposed to have been killed by evening train.

December 21, 1878. — A boy, named George G. Copeland, was run over and had both legs crushed, at Hyannis, in attempting to jump from a moving freight car upon which he had got a ride.

January 23, 1879. — Joseph Conardo, rag-picker, while upon the tracks in Boston yard, was struck by a moving car, and had ribs broken.

February 7, 1879. — Robert Hill, fatally injured while walking upon the track between South Boston and Crescent Avenue stations.

February 21, 1879. — George R. Lee, employé, struck by snow plough while walking upon the track near Acton station, and fatally injured.

March 3, 1879. — Jesse Peirce jumped from moving train at Braintree, and broke his leg.

March 8, 1879. — Granville Williams drove upon the track at "Straw Works Crossing," Mansfield, in advance of approaching train. Team was struck, and driver slightly injured.

March 18, 1879. — Barney McMinneman, intoxicated and lying upon track between East and West Bridgewater and Bridgewater, was struck and killed.

April 8, 1879. — Intoxicated man, named Michael Igo, got beneath a train in the Boston station (in an unknown manner), and was run over and killed.

April 22, 1879. — A boy named Elisha Carpenter was severely jammed in the chest, at Fall River, in trying to couple cars.

April 22, 1879. — A boy named Guthrie Collins jumped from a train (on which he had got for the purpose of a ride) at South Boston station, and fell beneath the cars, and had one leg crushed.

June 16, 1879. — A boy named James Spencer, in attempting to cross the track at Fall River in advance of a moving train, was struck, and had both legs crushed.

June 26, 1879. — Bradford Thayer, elderly and deaf, while walking on the track in Holbrook, was struck and killed.

July 1, 1879. — George Brigham, freight brakeman, received severe scalp wound by coming in contact with a bridge near Bowenville station.

July 3, 1879. — Michael Doherty, killed while walking on the track near Dorchester-street bridge, South Boston.

August 2, 1879. — Henry Bennett, killed while lying upon the track in a state of intoxication, near Brayton station.

August 21, 1879. — Thomas Robinson, in attempting to drive across the track at Ashland Street, Brockton, in advance of an approaching train, was struck and killed.

August 29, 1879. — By the derailment of a passenger train at Brockton, through a misplaced switch, one passenger, M. P. Standish, was slightly injured.

September 2, 1879. — John Flinn, partly deranged, was killed while walking upon the track near Onset Bay.

September 22, 1879. — Robert Dee, found between the tracks, north of Braintree station, in dying condition. Supposed to have been hit by an evening train while he was lying intoxicated.

September 29, 1879. — William Parks, struck by train and slightly bruised, while walking between the tracks at Taunton.

NAME AND RESIDENCE OF OFFICERS.

Charles F. Choate, *President*, Cambridge, Mass. James R. Kendrick, *Superintendent*, Boston, Mass. *Assistant Superintendents*, J. H. French, Boston, Mass., Charles N. Nye, Hyannis, Mass., S. A. Webber, Fitchburg, Mass. S. C. Putnam, *General Freight Agent*, Hyde Park, Mass. J. Sprague, Jr., *General Passenger Agent*, Boston, Mass. John M. Washburn, *Treasurer*, Boston, Mass. George Marston, *Clerk of Corporation*, New Bedford, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Charles F. Choate, Cambridge, Mass. Frederick L. Ames, North Easton, Mass. Thomas J. Borden, Fall River, Mass. John S. Brayton, Fall River, Mass. Uriel Crocker, Boston, Mass. Samuel L. Crocker, Taunton, Mass. Francis B. Hayes, Boston, Mass. Jacob H. Loud, Plymouth, Mass. George Marston, New Bedford, Mass. Royal W. Turner, Randolph, Mass. Elisha W. Willard, Newport, Mass. Ephraim N. Winslow, Hyannis, Mass.

PROPER ADDRESS OF THE COMPANY.

OLD COLONY RAILROAD COMPANY (P.O. Box 5,251),
BOSTON, MASS.

CHARLES F. CHOATE,
FRANCIS B. HAYES,
E. W. WILLARD,
SAM'L L. CROCKER,
ROYAL W. TURNER,
JOHN S. BRAYTON,
THOS. J. BORDEN,
JACOB H. LOUD,
URIEL CROCKER,
FRED. L. AMES,

Directors.

JOHN M. WASHBURN,

Treasurer.

J. R. KENDRICK,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 3, 1879. Then personally appeared Charles F. Choate, Francis B. Hayes, E. W. Willard, S. L. Crocker, R. W. Turner, J. S. Brayton, T. J. Borden, J. H. Loud, Uriel Crocker, Frederick L. Ames, John M. Washburn and J. R. Kendrick, and severally made oath to the truth of the foregoing statement by them subscribed.

GEO. MARSTON,

Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	35.26 tons.
Average weight of locomotives in working order . . .	28.77 "
Maximum weight of tenders full of fuel and water . . .	25 "
Average weight of tenders full of fuel and water . . .	20.66 "
Maximum weight of passenger cars . . .	23.54 "
Average weight of passenger cars . . .	17.45 "
Average weight of mail and baggage cars . . .	15.10 "
Average weight of 8-wheel box freight cars . . .	8.05 "
Average weight of 4-wheel box freight cars . . .	3.25 "
Average weight of 8-wheel platform cars . . .	6.95 "
Average weight of 4-wheel platform cars . . .	3 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	41.45 feet.
Total length of heaviest engine and tender over all . . .	54 "
Number of locomotives equipped with train-brake . . .	65
[Kind of brake: Westinghouse and vacuum.]	
Number of cars equipped with train-brake . . .	268
[Kind of brake: Westinghouse and vacuum.]	
Number of passenger cars with Miller platform and buffer .	213
Number of miles of road <i>operated</i> by your company not furnished with telegraph facilities (specifying location of same): . . .	15.12
From Bridgewater to South Abington (branch), number of miles . . .	7.08
From Middleboro' to Taunton (branch), number of miles, 8.04	

BRIDGES BUILT WITHIN THE YEAR IN MASSACHUSETTS.

LOCATION.	KIND.	MATERIAL.	LENGTH.	WHEN BUILT.
Stoughton . . .	Truss.	Iron.	37½ feet.	October, 1878.
Fall River . . .	Truss.	Wood.	28 feet.	May, 1879.
Fall River . . .	Girder.	Wood.	23 feet.	May, 1879.

Number of spans of bridges, of 25 feet and upwards . . .	42
Number of iron bridges (aggregate length, 1,237½ feet) . . .	4
Number of wooden bridges (aggregate length, 10,132 feet) . . .	127
Number of crossings of highways at grade . . .	340
Number of crossings of highways over railroad . . .	56
Number of crossings of highways under railroad . . .	15
Number of highway bridges 18 feet above track . . .	8
Number of highway bridges less than 18 feet above track . . .	48
Number of crossings at which gates or flagmen are maintained, . . .	41
Number of crossings at which there are neither electric signals, gates nor flagmen . . .	299
Number of railroad crossings at grade (specifying each): . . .	2
B., C., F. & N. B. R.R. at Myrick's and Weir Junction.	
Number of railroad crossings over other railroads: . . .	1
New York & New England Railroad.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .	2.6 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads . . .	1.6 "
Average rate of fare per mile for season-ticket passengers* . . .	.8 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers . . .	2 "
Average rate of local freight per ton per mile on roads operated by this company . . .	4.21 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads . . .	2.17 "

* Reckoning *twelve passengers* per week for time of each season ticket.

RELATING TO PASSENGERS.	
Passengers to Boston (including season) *	1,515,246
Passengers from Boston (including season) *	1,461,826
Season-ticket passengers to and from Boston *	751,332
CAPITAL STOCK.	
Capital stock authorized by charter \$7,949,980 00	
Capital stock authorized by votes of company 7,949,980 00	
Capital stock issued (number of shares, 67,338) ; amount paid in, ...	\$6,733,800 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. . . .	6,733,800 00
Total number of stockholders 5,039	
Number of stockholders in Massachusetts 4,737	
Amount of stock held in Massachusetts \$6,196,800 00	
DEBT.	
Funded debt, as follows:—	
Bonds due October 1, 1880, rate of interest 6 per cent	\$150,000 00
Interest paid on same during year \$8,895 00	
Bonds due August 1, 1881, rate of interest 7 per cent	265,500 00
Interest paid on same during year \$16,992 50	
Bonds due October 1, 1881, rate of interest 7 per cent	125,000 00
Interest paid on same during year \$13,125 00	
Bonds due September 1, 1884, rate of interest 5 per cent	32,000 00
Interest paid on same during year \$1,487 50	
Bonds due March 1, 1894, rate of interest 7 per cent	1,692,000 00
Interest paid on same during year \$119,105 00	
Bonds due June 1, 1895, rate of interest 6 per cent	500,000 00
Interest paid on same during year \$30,060 00	
Bonds due September 1, 1896, rate of interest 6 per cent	1,100,000 00
Interest paid on same during year \$66,330 00	
Bonds due August 1, 1897, rate of interest 6 per cent	2,000,000 00
Interest paid on same during year \$111,660 00	
TOTAL AMOUNT OF FUNDED DEBT	\$5,864,500 00

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

PITTSFIELD & NORTH ADAMS RAILROAD
COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston & Albany Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.

Total income	\$22,500 00
Dividends declared (5 per cent)	22,500 00

ANALYSIS OF EARNINGS.

Rents for use of road and equipment leased to Boston & Albany Railroad Company.	\$22,500 00
---	-------------

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$438,752 57
Equipment account	11,247 43
TOTAL ASSETS	\$450,000 00

LIABILITIES.

Capital stock	\$450,000 00
TOTAL LIABILITIES	\$450,000 00

DESCRIPTION OF ROAD.

Length of main line of road from Pittsfield to North Adams	18.65 miles.
Length of main line of road in Massachusetts	18.65 "
Total length of road belonging to this company.	18.65 "
Aggregate length of sidings and other tracks not above enumerated	3.64 "
Same in Massachusetts	3.64 "
Aggregate length of track, computed as single track	22.290 "
Same in Massachusetts	22.290 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 63 pounds.]	.100 "

NAME AND RESIDENCE OF OFFICERS.

Henry Colt, *President*, Pittsfield, Mass. Charles E. Stevens, *Treasurer*, Boston, Mass. James A. Rumrill, *Clerk of Corporation*, Springfield, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Henry Colt, Pittsfield, Mass. Francis H. Appleton, Boston, Mass. Ignatius Sargent, Jr., Brookline, Mass. Edward Jackson, Boston, Mass. C. W. Chapin, Springfield, Mass.

PROPER ADDRESS OF THE COMPANY.

PITTSFIELD & NORTH ADAMS RAILROAD COMPANY,
BOSTON, MASS.

HENRY COLT,
FRANCIS H. APPLETON,
IGNATIUS SARGENT, JR.,
Directors.
C. E. STEVENS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. October 30, 1879. Then personally appeared Henry Colt, Francis H. Appleton, Ignatius Sargent, Jr., and C. E. Stevens, and severally made oath to the truth of the foregoing statement by them subscribed.

J. A. RUMRILL,
Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards. . . .	4
Number of iron bridges (aggregate length, 52 feet)	2
Number of wooden bridges (aggregate length, 423 feet)	11
Number of crossings of highways at grade	20
Number of crossings at which there are neither electric signals, gates nor flagmen	20
Number of railroad crossings under other railroads (specifying each):	1
Troy & Greenfield Railroad.	

CAPITAL STOCK.

Capital stock authorized by charter	\$500,000 00	
Capital stock authorized by votes of company	450,000 00	
Capital stock issued (number of shares, 4,500); amount paid in, ...		\$450,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.		450,000 00
Total number of stockholders	109	
Number of stockholders in Massachusetts	100	
Amount of stock held in Massachusetts	\$441,200 00	

REPORT

OF THE

PROVIDENCE & WORCESTER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$919,852 25
Total expense (including taxes)	550,427 05
Net income	369,425 20
Rentals:	19,080 00
Milford & Woonsocket	\$3,480 00
Hopkinton	7,500 00
Boston & Albany	8,100 00
Interest accrued during the year:	108,753 07
On funded debt	\$70,560 00
On other debt	38,193 07
Dividends declared (5 per cent)	100,000 00
Balance for the year (surplus)	141,592 13
Balance at commencement of year	\$110,584 61
Deduct: —	
Reduced valuation of cars	107,764 00
Reduced valuation of locomotives	14,500 00
Balance at commencement of year as so changed to deficit	11,679 39
Balance September 30, 1879 (surplus)	129,912 74
ANALYSIS OF EARNINGS.	
From local passengers	\$261,051 64
through passengers (to and from other roads)	63,503 97
express and extra baggage	11,979 56
mails	3,967 55
Total earnings from passenger department	340,502 72
From local freight	398,068 59
through freight (to and from other roads)	175,904 80
Total earnings from freight department	573,973 39
TOTAL TRANSPORTATION EARNINGS	914,476 11
Income from all other sources: —	
Rent of real estate	5,376 14
TOTAL INCOME FROM ALL SOURCES	\$919,852 25
ANALYSIS OF EXPENSES.	
Taxes	\$28,149 28
General salaries, office expenses and miscellaneous	18,335 95
Insurance	10 97
Loss by fire	152 00
Telegraph expenses	3,599 52

Repairs of road	\$55,542 25
Iron rails	5,521 90
Steel rails	23,037 73
New ties	15,958 22
Repairs of bridges	13,475 83
Repairs of buildings	16,944 68
Repairs of machine-shops and machinery	3,480 55
Repairs of fences, road crossings and signs	4,593 85
Removing ice and snow	1,152 09
Repairs of locomotives	29,997 36
New locomotives	3,250 00
Fuel, locomotive power	45,874 45
Water and water stations	2,591 88
Fuel for cars, stations, shops and stationary engines	3,535 45
Oil and waste	4,453 07
Switchmen, watchmen, flag and signal men	21,525 65
Repairs of passenger, mail and baggage cars	19,186 76
Damages and gratuities to passengers	282 60
Salaries, wages and incidentals of passenger trains	33,121 46
Salaries, wages and incidentals of passenger stations	25,536 01
Repairs of freight cars*	32,864 22
Damages and gratuities, freight	2,047 09
Salaries, wages and incidentals of freight trains	59,960 38
Salaries, wages and incidentals of freight stations	67,378 06
Freight-car mileage (debit balances)	8,867 79
TOTAL EXPENSES	\$550,427 05
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Bridging	\$6,398 07
Land, land damages and fences	6,633 00
Passenger and freight stations, wood-sheds and water stations	1,014 00
TOTAL FOR CONSTRUCTION	14,045 07
Property sold (or reduced in valuation on the books) and credited property accounts during the year:	123,911 58
Amount received on account of viaduct at Worcester, Mass.	\$647 58
Locomotive "Berkeley" sold	1,000 00
Reduced valuation of cars	107,764 00
Reduced valuation of locomotives	14,500 00
NET REDUCTION OF PROPERTY ACC'TS DURING THE YEAR,	\$109,866 51
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$2,932,380 38
Equipment account	677,275 00
Cash items:	257,844 29
Cash	\$240,448 46
Bills receivable	500 00
Due from agents	520 00
Due from companies	16,375 83
Other assets:	57,989 83
Materials and supplies	\$54,425 39
Debit balances	3,564 44
TOTAL ASSETS	\$3,925,489 50

* Including cost of 52 coal dumps complete, 33 coal dump bodies, 2 8-wheel box car bodies, 1 4-wheel box car, and 2 iron pipe flat car bodies, to cover depreciation, \$15,000.

196 PROVIDENCE & WORCESTER RAILROAD. [Jan.

LIABILITIES.		
Capital stock		\$2,000,000 00
Funded debt		1,176,000 00
Unfunded debt:		619,576 76
Dividends unpaid	\$2,986 50	
Notes payable	590,000 00	
Vouchers and accounts	26,590 26	
Profit & Loss balance		129,912 74
TOTAL LIABILITIES		\$3,925,489 50
MILEAGE, TRAFFIC, ETC.		
Passenger-train mileage		229,676miles.
Freight-train mileage		219,862 "
Switching-train mileage		161,539 "
Other train mileage		9,523 "
TOTAL TRAIN MILEAGE		620,600 "
Number of season-ticket passengers*		103,624
Number of local passengers (including season)		1,581,036
Number of through passengers		58,090
TOTAL NUMBER OF PASSENGERS		1,639,126
Local passenger mileage (local passengers carried one mile)		11,225,477
Through passenger mileage (through passengers carried one mile)		2,527,915
Number of tons of local freight carried		347,505
Number of tons through freight carried		328,084
TOTAL NUMBER TONS FREIGHT CARRIED		675,589
Local freight mileage (tons local freight carried one mile)		5,015,202
Through freight mileage (tons through freight carried one mile), ...		14,271,612
Average weight of passenger trains (exclusive of passengers)		100tons.
Average number of cars in passenger trains		3.445
Average weight of freight trains (exclusive of freight)		300tons.
Average number of cars in freight train		30
Average number of persons employed		596
DESCRIPTION OF ROAD.		
Length of main line of road from Providence to Worcester		43.41 miles.
Length of main line of road in Massachusetts		25.51 "
Length of main line of road in Rhode Island		17.90 "
Length of double track on main line		30.90 "
Same in Massachusetts		13 "
Branches owned by company, viz.:—		
In connection with the Worcester & Nashua Railroad at Worcester (single track), length		1 "
East Providence Branch Railroad (single track)		7 "
Total length of branches owned by company		8 "
Total length of branches owned by company in Massachusetts, ...		1.50 "
Total length of branches owned by company in Rhode Island		6.50 "
Total length of road belonging to this company		51.41 "
Aggregate length of sidings and other tracks not above enumerated		24.04 "
Same in Massachusetts		14.21 "
Aggregate length of track, computed as single track		106.35 "
Same in Massachusetts		54.23 "
Total length of steel rails in tracks, not including steel-top rails		39.50 "
[Weights per yard, 60 pounds.]		
<i>Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.</i>		
Milford and Woonsocket Railroad, length		3.88 miles.
Hopkinton Railroad, length		11.55 "

* Reckoning twelve passengers per week for time of each season ticket.

Total length of above roads	15.43 miles.
Total length of above roads in Massachusetts	15.43 "
Total miles of road operated by this company	66.84 "
Total miles of road operated by this company in Massachusetts, ...	42.44 "
Number of stations in Massachusetts on all roads operated by this company	18
Number of telegraph offices in same	11
Number of stations on all roads owned by this company	22
Same in Massachusetts owned by this company	12
EQUIPMENT.	
Number of locomotives	29
Number of passenger cars	30
Number of baggage, mail and express cars	11
Number of freight cars (basis of 8 wheels)	817
Number of other cars	3

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	—	—	—	—	—	—	—
Employés	—	—	1	—	1	—	1	4
Others	—	—	4	2	4	2	6	7

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

October 10, 1878. — William Walker, a boy, while attempting to cross the track in front of passenger train at Riverdale, was struck and instantly killed.

November 25, 1878. — Owen Tansey was struck and killed by passenger train near Quinsigamond, while walking on the track.

December 18, 1878. — Patrick McDonald, engineer of freight train, while attempting to get on his engine at Whitin's Station, fell under the wheels, receiving injuries that proved fatal.

February 23, 1879. — Daniel Gill, while on the track near Blackstone Station, was struck and killed by a freight train.

June 25, 1879. — Mrs. A. H. Newton and Mrs. Dr. W. H. Sears, while attempting to cross the track at Worcester in a carriage, were struck by a passenger train, thrown out and injured.

August 28, 1879. — John F. Warren attempted to jump from a special passenger train at South Worcester, and received injuries that proved fatal.

NAME AND RESIDENCE OF OFFICERS.

George A. Leete, *President*. William E. Chamberlain, *Superintendent*. Julius E. Bacon, *General Freight Agent*. William M. Durfee, *General Passenger Agent*. John R. Balch, *Treasurer and Clerk of Corporation*.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William S. Slater, Providence, R. I. Paul Whitin, Whitin's, Mass. Gideon L. Spencer, Pawtucket, R. I. Elijah B. Stoddard, Worcester, Mass. Lyman A.

Cook, Woonsocket, R.I. Estus Lamb, Blackstone, Mass. John C. Whitin, Whitin's, Mass. George A. Leete, Providence, R.I. Eben B. Phillips, Boston, Mass. Moses B. I. Goddard, Providence, R.I. Amos D. Lockwood, Providence, R.I. Frederick Grinnell, Providence, R.I. Joseph E. Davis, Worcester, Mass. John Dean, Worcester, Mass. Oscar J. Rathbun, Woonsocket, R.I.

PROPER ADDRESS OF THE COMPANY.

PROVIDENCE & WORCESTER RAILROAD COMPANY,
PROVIDENCE, R.I.

GEO. A. LEETE,
JOHN C. WHITIN,
AMOS D. LOCKWOOD,
G. L. SPENCER,
WM. S. SLATER,
OSCAR J. RATHBUN,
FREDERICK GRINNELL,
E. B. STODDARD,
JOSEPH E. DAVIS,
MOSES B. I. GODDARD,
ESTUS LAMB,
LYMAN A. COOK,
Directors.
JOHN R. BALCH,
Treasurer.
W. E. CHAMBERLAIN,
Superintendent.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS.

PROVIDENCE, ss. October 31, 1879. Then personally appeared George A. Leete, John C. Whitin, Amos D. Lockwood, Gideon L. Spencer, William S. Slater, Oscar J. Rathbun, Frederick Grinnell, E. B. Stoddard, Joseph E. Davis, Moses B. I. Goddard, Estus Lamb and Lyman A. Cook, *Directors*, John R. Balch, *Treasurer*, and William E. Chamberlain, *Superintendent*, and severally made oath to the truth of the foregoing statement by them subscribed.

EDWIN METCALF,
Justice of the Peace.

GENERAL INFORMATION.	
Maximum weight of locomotives in working order . . .	36 tons.
Average weight of locomotives in working order . . .	30 "
Maximum weight of tenders full of fuel and water . . .	25 "
Average weight of tenders full of fuel and water . . .	18 "
Maximum weight of passenger cars . . .	20½ "
Average weight of passenger cars . . .	17 "
Average weight of mail and baggage cars . . .	17½ "
Average weight of 8-wheel box freight cars . . .	10 "
Average weight of 4-wheel box freight cars . . .	5 "
Average weight of 8-wheel platform cars . . .	8 "
Average weight of 4-wheel platform cars . . .	4 "

Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	43 ft. 4 in.
Total length of heaviest engine and tender over all	52 " 9 "
Number of locomotives equipped with train-brake	12
[Kind of brake: Westinghouse automatic air.]	
Number of cars equipped with train-brake	41
[Kind of brake: Westinghouse automatic air.]	
Number of passenger cars with Miller platform and buffer .	41
Number of spans of bridges, of 25 feet and upward	14
Number of wooden bridges	13
Number of crossings of highways at grade	32
Number of crossings of highways over railroad	5
Number of crossings of highways under railroad	1
Number of highway bridges 18 feet above track	1
Number of highway bridges less than 18 feet above track . .	4
Number of crossings at which gates or flagmen are maintained,	9
Number of crossings at which there are neither electric signals,	
gates nor flagmen	23
Number of railroad crossings at grade	1
Worcester Junction, Mass.	
Number of railroad crossings under other railroads:	1
New York & New England Railroad.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company . . .	2.44 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	3.20 "
Average rate of fare per mile for season-ticket passengers* .	.68 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers .	2.37 "
Average rate of local freight per ton per mile on roads operated by this company	3.28 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	2.46 "

CAPITAL STOCK.

Capital stock authorized by charter	\$3,000,000 00
Capital stock authorized by votes of company	3,000,000 00
Capital stock issued (number of shares, 20,000); amount paid in.	\$2,000,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	2,000,000 00
Total number of stockholders	792
Number of stockholders in Massachusetts	347
Amount of stock held in Massachusetts	\$981,600 00

DEBT.

Funded debt, as follows:—	
Mortgage bonds, due July 1, 1880, rate of interest 6 per cent,	\$500,000 00
Interest paid on same during year	\$30,000 00
Bonds due October 1, 1897, rate of interest 6 per cent . . .	676,000 00
Interest paid on same during year	\$40,560 00
TOTAL AMOUNT OF FUNDED DEBT	1,176,000 00

PROVIDENCE, November 3, 1879.

The undersigned, Commissioners of the Providence & Worcester Railroad Company, have examined this report, believe it to be correct, and hereby approve the same.

T. L. NELSON,
Commissioner for Massachusetts.
 JOHN R. BARTLETT,
Commissioner for Rhode Island.

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

RHODE ISLAND & MASSACHUSETTS RAILROAD
COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the New York & New England R.R. Co.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$7,200 00
Total expense (including taxes)	5 00
Net income	7,195 00
Dividends declared (3 per cent)	3,000 00
Balance for the year (surplus)	4,195 00
Balance at commencement of year	4,678 46
Balance September 30, 1879	8,873 46
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Grading and masonry	\$2,630 49
Land, land damages and fences	2,250 78
Engineering, agencies, salaries and other expenses during construction	204 31
TOTAL FOR CONSTRUCTION	5,085 58
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$108,723 05
Cash	163 25
TOTAL ASSETS	\$108,886 30
LIABILITIES.	
Capital stock	\$100,000 00
Vouchers and accounts	12 84
Profit & Loss balance	8,873 46
TOTAL LIABILITIES	\$108,886 30
Present or Contingent Liabilities not included in the Balance Sheet.	
Land damage not to exceed	\$2,000 00
DESCRIPTION OF ROAD.	
Length of main line of road from Franklin to R. I. State line	6.620 miles.
Length of main line of road in Massachusetts	6.620 "
Total length of road belonging to this company	6.620 "
Number of stations on all roads owned by this company	1
Same in Massachusetts	1

NAME AND RESIDENCE OF OFFICERS.

James P. Ray, *President*, Franklin, Mass. Edgar K. Ray, *Vice-President*, Franklin, Mass. Joseph G. Ray, *Treasurer*, Franklin, Mass. George W. Wiggin, *Clerk of Corporation*, Franklin, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

James P. Ray, Franklin, Mass. Joseph G. Ray, Franklin, Mass. Edgar K. Ray, Franklin, Mass. James M. Freeman, Franklin, Mass. Moses Farnum, Franklin, Mass. George W. Wiggin, Franklin, Mass. Enoch G. Sweatt, Woonsocket, R.I.

PROPER ADDRESS OF THE COMPANY.

RHODE ISLAND & MASSACHUSETTS RAILROAD COMPANY,
FRANKLIN, MASS.

JAMES P. RAY,
JOSEPH G. RAY,
JAMES M. FREEMAN,
MOSES FARNUM,
Directors.
JOSEPH G. RAY,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

NORFOLK, ss. November 5, 1879. Then personally appeared James P. Ray, Moses Farnum, Joseph G. Ray and James M. Freeman, and severally made oath to the truth of the foregoing statement by them subscribed.

GEORGE W. WIGGIN,
Justice of the Peace.

GENERAL INFORMATION.

Number of crossings of highways at grade	5
Number of crossings of highways over railroad	1
Number of highway bridges 18 feet above track	1
Number of crossings at which there are neither electric signals, gates nor flagmen	5

CAPITAL STOCK.

Capital stock authorized by charter	\$100,000 00	
Capital stock issued (number of shares, 1,000); amount paid in		\$100,000 00
Total number of stockholders	49	
Number of stockholders in Massachusetts	41	
Amount of stock held in Massachusetts	\$95,300 00	

REPORT

OF THE

SPENCER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road was completed during the present year, and is now leased to and operated by the Boston & Albany Railroad Company.]

PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Grading and masonry	\$1,832 78
Superstructure, including rails	10,027 18
Land, land damages and fences	1,448 05
Passenger and freight stations, wood-sheds and water stations, Engineering, agencies, salaries and other expenses during construction	3,298 29
	2,012 84
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS,	\$20,458 92
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$61,251 08
LIABILITIES.	
Capital stock	\$50,000 00
Unfunded debt (notes payable)	11,251 08
TOTAL LIABILITIES	\$61,251 08
DESCRIPTION OF ROAD.	
Length of main line of road from South Spencer to Spencer	2.165 miles.
Length of main line of road in Massachusetts	2.165 "
Aggregate length of sidings and other tracks not above enumerated	.745 "
Same in Massachusetts	.745 "
Aggregate length of track, computed as single track	2.910 "
Same in Massachusetts	2.910 "
Number of stations on all roads owned by this company	2
Same in Massachusetts	2

NAME AND RESIDENCE OF OFFICERS.

David Prouty, *President*, Spencer, Mass. Isaac L. Prouty, *Vice-President*, Spencer, Mass. Charles N. Prouty, *Treasurer*, Spencer, Mass. Joseph W. Temple, *Clerk of Corporation*, Spencer, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Charles N. Prouty, Isaac L. Prouty, David Prouty, Abraham Capen, James Capen, Dexter Bullard, Richard Sugden, Erastus Jones, Joseph W. Temple, all of Spencer, Mass.

PROPER ADDRESS OF THE COMPANY.

SPENCER RAILROAD COMPANY, SPENCER, MASS.

DAVID PROUTY,
ISAAC L. PROUTY,
DEXTER BULLARD,
ERASTUS JONES,
CHARLES N. PROUTY,
RICHARD SUGDEN,
J. W. TEMPLE,
ABRAHAM CAPEN,

Directors.

CHARLES N. PROUTY,

Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, SS. October 13, 1879. Then personally appeared David Prouty, Isaac L. Prouty, Dexter Bullard, Erastus Jones, Charles N. Prouty, Richard Sugden, James W. Temple, Abraham Capen and Charles N. Prouty, Treasurer, and severally made oath to the truth of the foregoing statement by them subscribed.

THOMAS A. PROUTY,

Justice of the Peace.

GENERAL INFORMATION.

Number of crossings of highways at grade	4
Number of crossings at which there are neither electric signals, gates nor flagmen	4

CAPITAL STOCK.

Capital stock authorized by charter	\$50,000 00	
Capital stock authorized by votes of company	50,000 00	
Capital stock issued (number of shares, 500); amount paid in		\$50,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.		50,000 00
Total number of stockholders	39	
Number of stockholders in Massachusetts	39	
Amount of stock held in Massachusetts	\$50,000 00	

REPORT OF THE SPRINGFIELD & NORTH-EASTERN RAILROAD COMPANY,

FOR THE THREE MONTHS ENDING SEPTEMBER 30, 1879.

[Formerly the Springfield, Athol & North-Eastern, which was sold out and re-organized in June, 1879, under Act of Legislature 1878, chap. 227.]

GENERAL EXHIBIT FOR THE THREE MONTHS.	
Total income	\$26,554 64
Total expense (including taxes)	14,627 40
Net income	11,927 24
Rentals	1,945 05
Balance for the year (surplus)	9,982 19
ANALYSIS OF EARNINGS.	
From local passengers	\$7,559 82
through passengers (to and from other roads)	839 98
express and extra baggage	300 50
mails	670 65
<i>Total earnings from passenger department</i>	9,370 95
From local freight	6,106 28
From through freight (to and from other roads)	9,158 91
<i>Total earnings from freight department</i>	15,265 19
TOTAL TRANSPORTATION EARNINGS	24,636 14
Rents for use of road	1,918 50
TOTAL INCOME FROM ALL SOURCES	\$26,554 64
ANALYSIS OF EXPENSES.	
Taxes	\$2 00
General salaries, office expenses and miscellaneous	2,043 10
Insurance	99 00
Telegraph expenses	108 37
Repairs of road	2,852 28
New ties	400 65
[Number laid, 1,929.]	
Repairs of buildings	51 23
Repairs of fences, road crossings and signs	110 50
Repairs of locomotives	191 21
Fuel, locomotive power	2,625 00
Oil and waste	142 49
Switchmen, watchmen, flag and signal men	115 35
Repairs of passenger, mail and baggage cars	281 58
Salaries, wages and incidentals of passenger trains	1,428 94
Salaries, wages and incidentals of passenger stations	597 52
Passenger-car mileage (debit balances)	263 24
Repairs of freight cars	18 59
Salaries, wages and incidentals of freight trains	880 55
Salaries, wages and incidentals of freight stations	1,783 96
Freight-car mileage (debit balances)	631 84
TOTAL EXPENSES	\$14,627 40

Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$379,500 00
Equipment account	25,500 00
Cash items:	21,744 57
Cash	\$7,537 69
Due from agents and companies	14,206 88
Other assets:	3,249 45
Materials and supplies	\$3,249 45
TOTAL ASSETS	\$429,994 02
LIABILITIES.	
Capital stock	\$405,000 00
Unfunded debt: (vouchers and accounts)	15,011 83
Profit & Loss balance	9,982 19
TOTAL LIABILITIES	\$429,994 02
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	17,280 miles.
Freight-train mileage	8,640 "
Switching-train mileage	1,500 "
Other train mileage	600 "
TOTAL TRAIN MILEAGE	28,020 "
Number of season-ticket passengers *.	1,714
Number of local passengers (including season)	15,572
Number of through passengers	1,096
TOTAL NUMBER OF PASSENGERS	16,668
Local passenger mileage (local passengers carried one mile)	209,246
Through passenger mileage (through passengers carried one mile)	22,773
Number of tons local freight carried	7,065
Number of tons through freight carried	8,832
TOTAL NUMBER OF TONS FREIGHT CARRIED	15,897
Local freight mileage (tons local freight carried one mile)	94,989
Through freight mileage (tons through freight carried one mile), ...	151,399
Average weight of passenger trains (exclusive of passengers)	80 tons.
Average number of cars in passenger train	2
Average weight of freight trains (exclusive of freight)	132 tons.
Average number of cars in freight train	12
Average number of persons employed	74
DESCRIPTION OF ROAD.	
Length of main line of road from Springfield to Athol	48.50 miles.
Length of main line of road in Massachusetts	48.50 "
Aggregate length of sidings and other tracks not above enumerated	4.00 "
Same in Massachusetts	4.00 "
Aggregate length of track, computed as single track*.	52.50 "
Same in Massachusetts	52.50 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 56 pounds.]	2.50 "
Total miles of road operated by this company	48.50 "
Total miles of road operated by this company in Massachusetts, ...	48.50 "
Number of stations in Massachusetts on all roads operated by this company	17
Number of telegraph offices in same	7
Number of stations on all roads owned by this company	17
Same in Massachusetts	17

* Reckoning twelve passengers per week for time of each season ticket.

EQUIPMENT.

Number of locomotives leased, 2; owned, 3	5
Number of passenger cars leased 1; owned, 4	5
Number of baggage, mail and express cars leased, 1; owned, 2,	3
Number of freight cars (basis of 8 wheels) leased, 21; owned, 15,	36

NAME AND RESIDENCE OF OFFICERS.

Willis Phelps, *President and General Manager*; E. M. Bartlett, *General Agent*;
William K. Baker, *Treasurer and Clerk of Corporation*, — all of Springfield.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Chester W. Chapin, Springfield, Mass. Willis Phelps, Springfield, Mass.
William K. Baker, Springfield, Mass. James A. Rumrill, Springfield, Mass.
C. W. Chapin, Jr., New York. Rufus D. Woods, Enfield, Mass. S. P. Bailey,
G. Village, Mass. W. B. Kimball, Enfield, Mass. R. W. Chapin, Waterford,
Conn.

PROPER ADDRESS OF THE COMPANY.

SPRINGFIELD & NORTH-EASTERN RAILROAD COMPANY,
SPRINGFIELD, MASS.

WILLIS PHELPS,
C. W. CHAPIN,
WILLIAM K. BAKER,
J. A. RUMRILL,
WILLIAM B. KIMBALL,
Directors.
WILLIAM K. BAKER,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

HAMPDEN, ss. November 4, 1879. Then personally appeared Willis Phelps,
C. W. Chapin, William K. Baker and J. A. Rumrill, and severally made oath
to the truth of the foregoing statement by them subscribed.

P. S. BAILEY,
Notary Public.

HAMPSHIRE, ss. November 4, 1879. Then personally appeared William B.
Kimball, and made oath to the truth of the foregoing statement by him sub-
scribed.

CHARLES RICHARDS,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order	31 tons.
Average weight of locomotives in working order	27 "
Maximum weight of tenders full of fuel and water	20 "
Average weight of tenders full of water	16 "
Maximum weight of passenger cars	22 "

Average weight of passenger cars	18 tons.
Average weight of mail and baggage cars	15 “
Average weight of 8-wheel box freight cars	10 “
Average weight of 8-wheel platform cars	8 “
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender	37½ feet.
Total length of heaviest engine and tender over all	40 feet 10 in.
Road first opened for operation, July, 1879.	
Number of spans of bridges, of 25 feet and upwards	7
Number of wooden bridges	5
Number of crossings of highways at grade	46
Number of crossings of highways over railroad	1
Number of crossings of highways under railroad	1
Number of highway bridges 18 feet above track	1
Number of crossings at which gates or flagmen are maintained, Number of crossings at which there are neither electric signals, gates nor flagmen	1 45
Number of railroad crossings at grade: New London & Northern at Barrett's Junction.	1
Number of railroad crossings over other railroads: Boston & Albany at Springfield.	1

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	3.14 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	2.09 “
Average rate of fare per mile for season-ticket passengers *	1.30 “
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	3.01 “
Average rate of local freight per ton per mile on roads operated by this company	6.20 “

CAPITAL STOCK.

Capital stock authorized by charter	\$405,000 00
Capital stock authorized by votes of company	405,000 00
Capital stock issued (number of shares, 4,050); amount paid in, ...	\$405,000 60
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	405,000 00
Total number of stockholders	23
Number of stockholders in Massachusetts	22
Amount of stock held in Massachusetts	\$401,400 00

NOTE.—The Springfield & North-Eastern Railroad Company bought the property of the Springfield, Athol & North-Eastern Railroad Company, and took possession July 1, 1879; and this report is made to cover the time the road has been run by this company. The Springfield, Athol & North-Eastern Railroad Company did not hold an annual meeting to keep up its organization. The price paid for the property was \$395,000, to which was added \$10,000 as authorized by Act of the Legislature.

* Reckoning *twelve passengers* per week for time of each season ticket.

REPORT

OF THE

SPRINGFIELD & NEW LONDON RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Connecticut Central Railroad Company of Connecticut.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$7,505 00
Total expense (including taxes)	1,005 55
Net income	6,499 45
Dividends declared ($3\frac{1}{2}$ per cent)	6,023 50
Balance for the year (surplus)	475 95
Balance at commencement of year	5,509 58
Balance September 30, 1879 (surplus)	5,985 53
ANALYSIS OF EARNINGS.	
Rents for use of road	\$7,500 00
Rent of land	5 00
TOTAL INCOME FROM ALL SOURCES	\$7,505 00
ANALYSIS OF EXPENSES.	
Taxes	\$764 30
General salaries, office expenses and miscellaneous	187 75
Insurance	53 50
PROPERTY ACCOUNTS : CHARGES DURING THE YEAR.	
Engineering, agencies, salaries, and other expenses during construction	\$154 25
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$187,455 52
Stock of Springfield & New London Railroad Company	9,998 00
Cash	6,729 01
TOTAL ASSETS	\$204,182 53
LIABILITIES.	
Capital stock	\$198,145 00
Dividends unpaid	52 00
Profit & Loss balance (surplus)	5,985 53
TOTAL LIABILITIES	\$204,182 53
DESCRIPTION OF ROAD.	
Length of main line of road from Springfield to Connecticut State line	7.50 miles.
Length of main line of road in Massachusetts	7.50 "

Aggregate length of sidings and other tracks not above enumerated	.50 miles.
Same in Massachusetts	.50 "
Aggregate length of track, computed as single track	8 "
Same in Massachusetts	8 "
Total length of steel rails in tracks, not including steel-top rails	8 "
Number of stations on all roads owned by this company . . .	3
Same in Massachusetts	3

NAME AND RESIDENCE OF OFFICERS.

Gurdon Bill, *President*; L. J. Powers, *Vice-President*; James Kirkham, *Treasurer*; T. M. Dewey, *Clerk of Corporation*, — all of Springfield, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Gurdon Bill, Springfield, Mass. L. J. Powers, Springfield, Mass. H. Fuller, Jr., Springfield, Mass. Charles O. Chapin, Springfield, Mass. J. H. Appleton, Springfield, Mass. James Kirkham, Springfield, Mass. M. L. Tourtellotte, Springfield, Mass. Horace Smith, Springfield, Mass. Hinsdale Smith, Springfield, Mass. H. W. Phelps, Minneapolis, Minn. Emerson Wight, Springfield, Mass. C. L. Corill, Springfield, Mass. Virgil Perkins, Springfield, Mass.

PROPER ADDRESS OF THE COMPANY.

SPRINGFIELD & NEW LONDON RAILROAD COMPANY,
SPRINGFIELD, MASS.

MARCIOUS L. TOURTELLOTTE,
HENRY FULLER, JR.,
L. J. POWERS,
GURDON BILL,
C. O. CHAPIN,
E. WIGHT,
JAMES KIRKHAM,

Directors.

JAMES KIRKHAM,

Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

HAMPDEN, ss. October 30, 1879. Then personally appeared Marcious L. Tourtellotte, Henry Fuller, Jr., L. J. Powers, Gurdon Bill, E. Wight, C. O. Chapin and James Kirkham, and severally made oath to the truth of the foregoing statement by them subscribed.

D. E. WEBSTER,
Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards	2
Number of wooden bridges	1
Number of crossings of highways at grade	12
Number of crossings of highways over railroad	1

Number of highway bridges 18 feet above track	1
Number of crossings at which there are neither electric signals, gates nor flagmen	12
CAPITAL STOCK.	
Capital stock authorized by charter	\$200,000 00
Capital stock authorized by votes of company	200,000 00
Capital stock issued (number of shares, 1,721); amount paid in,	\$172,100 00
Capital stock paid in on shares not issued (number of shares, 279),	26,045 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.	198,145 00
Total number of stockholders	76
Number of stockholders in Massachusetts	76
Amount of stock held in Massachusetts	\$198,145 00

REPORT

OF THE

STOCKBRIDGE & PITTSFIELD RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Housatonic Railroad Company of Connecticut.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$31,647 00
Total expense (including taxes)	4,862 40
Net income	26,784 60
Interest accrued during year	55 90
Dividends declared (5.95 per cent)	26,711 08
Balance for the year (surplus)	17 62
Balance at commencement of year	2,697 89
Balance September 30, 1879 (surplus)	2,715 51
ANALYSIS OF EARNINGS.	
Rents for use of road	\$31,409 00
Dividend on 34 shares stock Stockbridge & Pittsfield R.R. Co.	238 00
TOTAL INCOME FROM ALL SOURCES	\$31,647 00
ANALYSIS OF EXPENSES.	
Taxes	\$4,642 02
General salaries, office expenses and miscellaneous	220 38
TOTAL EXPENSES	\$4,862 40
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$448,700 00
Stock of Stockbridge & Pittsfield Railroad Company	2,550 00
Cash	399 96
TOTAL ASSETS	\$451,649 96
LIABILITIES.	
Capital stock	\$448,700 00
Dividends unpaid	234 45
Profit & Loss balance (surplus)	2,715 51
TOTAL LIABILITIES	\$451,649 96
DESCRIPTION OF ROAD.	
Length of main line of road from Van Deusenville to Pittsfield, ...	22.00 miles.
Length of main line of road in Massachusetts	22.00 “
Aggregate length of sidings and other tracks not above enumerated	3.40 “

Same in Massachusetts	3.40 miles.
Aggregate length of track, computed as single track	25.40 "
Same in Massachusetts	25.40 "
Number of stations on all <i>roads owned</i> by this company	9
Same in Massachusetts	9

NAME AND RESIDENCE OF OFFICERS.

D. R. Williams, *President*, Stockbridge, Mass. D. A. Kimball, *Treasurer*, Stockbridge, Mass. J. Z. Goodrich, *Clerk of Corporation*, Stockbridge, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

D. R. Williams, D. A. Kimball, L. S. Adams, F. Hoffmann and J. B. Hull, all of Stockbridge, Mass. S. M. Buckingham, Poughkeepsie, N.Y.

PROPER ADDRESS OF THE COMPANY.

STOCKBRIDGE & PITTSFIELD RAILROAD COMPANY,
STOCKBRIDGE, MASS.

D. R. WILLIAMS,
W. A. SEYMOUR,
D. A. KIMBALL,
Directors.
D. A. KIMBALL,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

BERKSHIRE, SS. STOCKBRIDGE, October 1, 1879. Then personally appeared Daniel R. Williams, William A. Seymour and Daniel A. Kimball, and severally made oath to the truth of the foregoing statement by them subscribed.

J. Z. GOODRICH,
Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards	11
Number of wooden bridges	5
Number of crossings of highways at grade	25
Number of crossings of highways over railroad	2
Number of crossings of highways under railroad	3
Number of highway bridges less than 18 feet above track	2
Number of crossings at which gates or flagmen are maintained, ...	1
Number of crossings at which there are neither electric signals, gates nor flagmen	24

CAPITAL STOCK.

Capital stock authorized by charter	\$550,000 00	
Capital stock authorized by votes of company	550,000 00	
Capital stock issued (number of shares, 4,487); amount paid in, ...		\$448,700 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.		448,700 00
Total number of stockholders	215	
Number of stockholders in Massachusetts	159	
Amount of stock held in Massachusetts	\$286,000 00	

REPORT OF THE STONY BROOK RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Nashua & Lowell Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$18,796 32
Total expense (including taxes)	158 95
Net income	18,637 37
Dividends declared (6 per cent)	18,000 00
Balance for the year (surplus)	637 37
Balance at commencement of year	\$5,710 84
Deduct:—	
One per cent extra dividend paid Nov. 1, 1878.	3,000 00
Balance at commencement of year as so changed	2,710 84
Balance September 30, 1879 (surplus)	3,348 21
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$276,601 19
Lands	21,492 38
Bonds of Boston & Lowell Railroad	4,000 00
Cash	392 36
Debit balances	862 28
TOTAL ASSETS	\$303,348 21
LIABILITIES.	
Capital stock	\$300,000 00
Profit & Loss balance (surplus)	3,348 21
	\$303,348 21
DESCRIPTION OF ROAD.	
Length of main line of road from North Chelmsford to Ayer	13.16 miles.
Length of main line of road in Massachusetts	13.16 "
Aggregate length of sidings and other tracks not above enumerated	.950 "
Same in Massachusetts	.950 "
Aggregate length of track, computed as single track	14.110 "
Same in Massachusetts	14.110 "
Number of stations on all roads owned by this company	9
Same in Massachusetts	9

NAME AND RESIDENCE OF OFFICERS.

James B. Francis, *President*, Lowell, Mass. Jacob Rogers, *Treasurer*, Lowell.
Jacob Rogers, *Clerk of Corporation*, Lowell.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

James B. Francis, Lowell, Mass. Sewall I. Mack, Lowell, Mass. William A. Burke, Lowell, Mass. George F. Richardson, Lowell, Mass. Jacob Rogers, Lowell, Mass. Samuel Fay, Lowell, Mass. J. Henry Read, Westford, Mass.

PROPER ADDRESS OF THE COMPANY.

STONY BROOK RAILROAD CORPORATION,
LOWELL, MASS.

FRS. A. BROOKS,
FRANCIS V. PARKER,
J. W. WHITE,
W. W. BAILEY,
C. V. DEARBORN,
Directors.
C. V. DEARBORN,
Treasurer.
CHAS. E. PAIGE,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 21, 1879. Then personally appeared Francis A. Brooks and Francis V. Parker, and severally made oath to the truth of the foregoing statement by them subscribed.

Before me,

ALFRED S. HALL,

Justice of the Peace.

STATE OF NEW HAMPSHIRE.

HILLSBOROUGH, ss. November 20, 1879. Then personally appeared J. W. White, W. W. Bailey, C. V. Dearborn and Charles E. Paige, and severally made oath that the foregoing statement by them subscribed is true, according to their best knowledge and belief.

Before me,

GEO. SWAIN,

Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	5
Number of wooden bridges	3
Number of crossings of highways at grade	13
Number of highway bridges less than 18 feet above track . . .	3
Number of crossings at which gates or flagmen are maintained, . .	3
Number of crossings at which there are neither electric signals, gates nor flagmen	10

CAPITAL STOCK.

Capital stock authorized by charter	\$300,000 00	
Capital stock authorized by votes of company	300,000 00	
Capital stock issued (number of shares, 3,000); amount paid in, . . .		\$300,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.		300,000 00
Total number of stockholders	235	
Number of stockholders in Massachusetts	216	
Amount of stock held in Massachusetts	\$283,100 00	

REPORT
OF THE
TROY & GREENFIELD RAILROAD,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is owned by the State and operated by the Fitchburg Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$224,365 14
Total expense (including taxes)	106,819 90
Net income	117,545 24
Less amount retained by Fitchburg R.R. Co. for arbitration	34,750 75
Balance for the year	82,794 49
ANALYSIS OF EARNINGS.	
From passengers	\$52,476 48
express and extra baggage	1,492 58
mails	5,139 88
<i>Total earnings from passenger department</i>	<i>59,108 94</i>
From freight	153,256 20
TOTAL TRANSPORTATION EARNINGS	212,365 14
Rents for use of Southern Vermont Railroad	12,000 00
TOTAL EARNINGS	\$224,365 14
Less amount retained by Fitchburg Railroad for arbitration	34,750 75
TOTAL INCOME FROM ALL SOURCES	189,614 39
ANALYSIS OF EXPENSES.	
Salaries of general officers and clerks	\$10,914 84
Legal expenses	21 50
Insurance	135 50
Stationery and printing	891 07
Contingencies and miscellaneous	793 42
Repairs of bridges (including culverts and cattle-guards)	904 30
Repairs of buildings	2,755 60
Repairs of fences, road crossings and signs	254 46
Renewal of ties	367 10
Repairs of road-bed and track	41,840 33
Repairs of locomotives	1,260 11
Fuel for locomotives	1,931 34
Water supply	574 00
Oil and waste	20 65
Locomotive service	759 16
Repairs of flat and dump cars	117 79
Telegraph expenses	6,602 41
Agents and station service	16,819 66
Station supplies	1,486 63
TOTAL OPERATING EXPENSES	88,449 89
Extraordinary expenses, land-slides, etc.	18,370 01
TOTAL OPER'G EXPENSES, LAND-SLIDES AND WASHOUTS, ...	\$106,819 90

PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Grading and masonry	\$3,045 02
Super-structure, including rails	4,468 01
Land, land damages and fences	3,406 48
Passenger and freight stations, wood-sheds and water stations,	22,927 47
Engine-houses, car-sheds and turn-tables	8,985 69
TOTAL FOR CONSTRUCTION	\$42,832 67
DESCRIPTION OF ROAD.	
Length of main line of road from Greenfield to Vermont .	44 miles.
Length of main line of road in Massachusetts	44 "
Total length of road belonging to this company	44 "
Aggregate length of sidings and other tracks not above enumerated	18.50 "
Same in Massachusetts	18.50 "
Aggregate length of track, computed as single track	62.50 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 60 pounds; 68 in Tunnel.]	44 "
Number of stations in Massachusetts	11
Number of telegraph offices in same	15
Number of stations on all roads owned by this company	11
Same in Massachusetts	11
EQUIPMENT.	
Number of locomotives	2
Number of freight cars (basis of 8 wheels).	13
Number of other cars	22

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured
Passengers	-	-	-	-	-	-	-	-
Employés	-	-	2	1	2	1	2	1
Others	-	-	1	-	1	-	1	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

— April 18, 1879. — R. H. Beach, brakeman on Fitchburg Railroad freight train, slipped and fell from train in Tunnel about 6.10 A.M.; train passed over left arm. He was injured about his head and shoulders and internally. He died from internal injuries at 3.20 A.M., 20th inst.

July 20, 1879. — Frank Gainley, brakeman on freight train No. 56, Fitchburg Railroad, in attempting to get inside a car from top while train was moving, was struck by water-spout and knocked from train at Charlemont station; received cuts and bruises about head; not seriously injured.

September 30, 1879. — Patrick Culhane, track walker in Hoosac Tunnel, was struck by some train after 1.30 P.M., and found insensible beside track. He died from his injuries October 20, 1879.

July 4, 1879. — Mrs. Thomas Welch of Pownal, Vt., lying on the track near Broadbrook Bridge between Williamstown and Vermont station evening of July 4, 1879, was run over and instantly killed by train No. 17, Troy & Boston Railroad. She was said to have been intoxicated, and carried by Pownal station, where she wished to leave train, and taken to Williamstown. She then started to return to her home on the track.

NAME AND RESIDENCE OF OFFICERS.

G. Clinton Gardner, *General Manager*, Greenfield, Mass. Austin Bond, *Treasurer*, North Adams, Mass.

PROPER ADDRESS OF THE COMPANY.

TROY & GREENFIELD RAILROAD & HOOSAC TUNNEL,
NORTH ADAMS, MASS.

G. CLINTON GARDNER,
Manager.
AUSTIN BOND,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

BERKSHIRE, SS. NORTH ADAMS, December 6, 1879. Then personally appeared G. Clinton Gardner, Manager, and Austin Bond, Treasurer, and severally made oath to the truth of the foregoing statement by them subscribed.

WILL'D P. PHILLIPS,
Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	37
Number of iron bridges (aggregate length, 2,126 feet) . . .	16
Number of wooden bridges (aggregate length, 1,051 feet) . . .	4
Number of crossings of highways at grade	24
Number of crossings of highways over railroad	4
Number of crossings of highways under railroad	10
Number of highway bridges 18 feet above track	4
Number of crossings at which gates or flagmen are maintained, ...	5
Number of crossings at which there are neither electric signals, ...	
gates nor flagmen	19
Number of railroad crossings over other railroads:	1
Pittsfield & North Adams Railroad.	

REPORT OF THE UNION FREIGHT RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Old Colony Railroad Company, and is used only for the transportation of freight.]

GENERAL EXHIBIT FOR THE YEAR.

[Company's Account.]

Rents received from lessee	\$19,097 97
Interest received	105 22
Dividend on 130 shares stock owned by company	520 00

TOTAL INCOME	\$19,723 19
General expense	153 50

NET INCOME	\$19,569 69
Dividends declared (4 per cent)	12,000 00
Surplus for the year	7,569 69
Deficit at commencement of year	5,497 44
Surplus September 30, 1879	2,072 25

[Lessees' Account.]

Total income	\$62,834 81
Total expense (including taxes)	49,263 50
Net income	13,571 31
Rentals paid Union Freight Railroad Company	19,097 97
Deficit for the year	5,526 66

ANALYSIS OF EARNINGS.

From local freight	\$52,345 94
From through freight (to and from other roads)	10,488 87

TOTAL TRANSPORTATION EARNINGS	\$62,834 81
---	-------------

ANALYSIS OF EXPENSES.

Taxes	\$1,692 90
General salaries, office expenses and miscellaneous	5,199 46
Repairs of road	6,569 89
Steel rails	2,826 05

[Number tons laid, 106.]

Removing ice and snow	1,485 62
Repairs of locomotives	10,618 79
Fuel, locomotive power	3,070 43
Water and water stations	507 26
Oil and waste	901 30
Damages and gratuities, freight	167 49
Salaries, wages and incidentals of freight trains	13,613 13
Salaries, wages and incidentals of freight stations	2,611 18

TOTAL EXPENSES	\$49,263 50
--------------------------	-------------

PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.
Superstructure, including rails

\$1,329 31

Balance Sheet September 30, 1879.

ASSETS.

Construction account	\$264,344 83
Stock of Union Freight Railroad Company	13,000 00
Cash	24,727 42

TOTAL ASSETS	\$302,072 25
------------------------	--------------

LIABILITIES.

Capital stock	\$300,000 00
Profit & Loss balance	2,072 25

TOTAL LIABILITIES	\$302,072 25
-----------------------------	--------------

Present or Contingent Liabilities not included in the Balance Sheet.

A claim is made by the Marginal Freight Railroad Company that the original grant of the charter of this company is void, and also a claim for the portion of its track taken by this company under its charter. Both now in litigation.

* MILEAGE, TRAFFIC, ETC.

Freight-train mileage	27,655 miles.
Number of tons of local freight carried	209,805
Number of tons of through freight carried	25,787
TOTAL NUMBER OF TONS FREIGHT CARRIED	235,592
Local freight mileage (tons local freight carried one mile)	310,877
Through freight mileage (tons through freight carried one mile),	56,982
Average number of persons employed	35

DESCRIPTION OF ROAD.

Length of main line of road from the Boston & Lowell Railroad on the north to the Old Colony Railroad on the south	2.451 miles.
Length of main line of road in Massachusetts	2.451 "
Length of double track on main line	.522 "
Same in Massachusetts	.522 "
Total length of road belonging to this company	2.451 "
Aggregate length of sidings and other tracks not above enumerated	1.760 "
Same in Massachusetts	1.760 "
Aggregate length of track, computed as single track	4.733 "
Same in Massachusetts	4.733 "
Total length of steel rails in tracks, not including steel-top rails, Total miles of road operated by this company	1.200 "
Total miles of road operated by this company in Massachusetts,	2.451 "

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	-	-	-	-	-	-	-	-
Employees	-	-	-	-	-	-	-	-
Others	-	-	1	-	1	-	1	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

April 23, 1879. — James Conigle having got beneath the cars on Commercial Street, Boston, in some unknown manner, was run over and killed.

NAME AND RESIDENCE OF OFFICERS.

Charles F. Choate, *President*, Cambridge, Mass. B. B. Torrey, *Treasurer and Clerk of Corporation*, Hanover, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Charles F. Choate, Cambridge, Mass. Henry A. Whitney, Boston, Mass. William G. Russell, Boston, Mass. A. A. Folsom, Boston, Mass. James R. Kendrick, Boston, Mass. Ephraim N. Winslow, Hyannis.

PROPER ADDRESS OF THE COMPANY.

UNION FREIGHT RAILROAD COMPANY,
BOSTON, MASS.

CHARLES F. CHOATE,
HENRY A. WHITNEY,
ALBERT A. FOLSOM,
J. R. KENDRICK,
Directors.
B. B. TORREY,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. BOSTON, November 4, 1879. Then personally appeared Charles F. Choate, Henry A. Whitney, Albert A. Folsom, J. R. Kendrick, Directors, and B. B. Torrey, Treasurer, and severally made oath to the truth of the foregoing statement by them subscribed.

JOHN M. WASHBURN,
Justice of the Peace.

RATES OF FARE, ETC.

Average rate of local freight per ton per mile on roads operated by this company	16.8 cents.
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	18.4 "

CAPITAL STOCK.

Capital stock authorized by charter	\$500,000 00	
Capital stock authorized by votes of company	300,000 00	
Capital stock issued (number of shares, 3,000); amount paid in, ...		\$300,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.		300,000 00
Total number of stockholders	3	
Number of stockholders in Massachusetts	3	
Amount of stock held in Massachusetts	\$300,000 00	

 TONNAGE REPORT FOR YEAR ENDING SEPTEMBER 30, 1879.

Number of tons carried to the Railroads from Wharves and Warehouses.

Old Colony Railroad	1,925 tons.
Boston & Albany Railroad	1,218 "
New York & New England Railroad	828 "
Fitchburg Railroad	6,629 "
Eastern Railroad	1,320 "
Boston & Lowell Railroad	2,231 "
Boston & Providence Railroad	309 "
Boston & Maine	647 "

15,107 tons.

Number of tons carried to Wharves and Warehouses from the several Railroads.

Old Colony Railroad	808 tons.
Boston & Albany Railroad	13,761 "
New York and New England Railroad	1,115 "
Fitchburg Railroad	116,363 "
Eastern Railroad	4,288 "
Boston & Maine Railroad	1,582 "
Boston & Lowell Railroad	30,073 "
Boston & Providence Railroad	53 "

168,043 "

Number of tons carried to other Railroads from Railroads.

Old Colony Railroad	26,166 tons.
Boston & Albany Railroad	896 "
New York & New England Railroad	11,870 "
Fitchburg Railroad	2,687 "
Eastern Railroad	1,529 "
Boston & Maine Railroad	1,103 "
Boston & Lowell Railroad	2,342 "
Boston & Providence Railroad	5,847 "

52,442 "

 Total

235,592 tons.

REPORT

OF THE

VERMONT & MASSACHUSETTS RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Fitchburg Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$174,600 00
Total expense	3,000 00
Net income	171,600 00
Dividends declared (6 per cent)	171,600 00
Balance at commencement of year	38,802 28
Balance September 30, 1879	38,802 28
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$3,288,328 01
Equipment account	261,233 64
Other permanent investments:	215,076 96
Lands in Massachusetts	\$50,720 46
Lands in Vermont	3,802 95
Stock of Turner's Falls Branch	145,800 63
Stock of Lake Pleasant	15,252 92
Cash items:	31,643 47
Cash	\$5,122 25
Fitchburg Railroad Company	26,166 69
City Institution for Savings in Lowell	354 53
TOTAL ASSETS	\$3,796,282 08
LIABILITIES.	
Capital stock	\$3,050,000 00
Funded debt	700,000 00
Unfunded debt:	7,479 80
Dividends unpaid	\$5,122 25
Vouchers and accounts	2,357 55
Profit & Loss balance (surplus)	38,802 28
TOTAL LIABILITIES	\$3,796,282 08
DESCRIPTION OF ROAD.	
Length of main line of road from Fitchburg to Greenfield	56 miles.
Length of main line of road in Massachusetts	56 "
Length of double track on main line	10.39 "
Branches owned by company, viz.:—	
Brattleborough Branch (single track), length	21.31 "
Turner's Falls Branch	2.80 "
Total length of branches owned by company	24.11 "

Total length of branches owned by company in Massachusetts.	13.80 miles.
Total length of branches owned by company in Vermont	10.30 “
Total length of road belonging to this company	80.11 “
Aggregate length of sidings and other tracks not above enumerated	22.80 “
Same in Massachusetts	19.63 “
Aggregate length of track, computed as single track	113.300 “
Same in Massachusetts	101.99 “
Total length of steel rails in tracks, not including steel-top rails	43.26 “
[Weights per yard, 60 pounds.]	
Number of stations on all roads owned by this company	23
Same in Massachusetts	20

NAME AND RESIDENCE OF OFFICERS.

Daniel S. Richardson, *President*, Lowell, Mass. Franklin N. Poor, *Treasurer*, Somerville, Mass. Benjamin D. Locke, *Clerk of Corporation*, Arlington, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Daniel S. Richardson, Lowell, Mass. William H. Hill, Brookline, Mass. James A. Dupee, Winchester, Mass. George F. Fay, Fitchburg, Mass. Thornton K. Ware, Fitchburg, Mass. Francis Goodhue, Brattleborough, Vt. Edward L. Davis, Worcester, Mass.

PROPER ADDRESS OF THE COMPANY.

VERMONT & MASSACHUSETTS RAILROAD COMPANY,
TREASURER'S OFFICE, 17 STATE STREET, BOSTON.

WM. B. STEARNS,
SETH BEMIS,
ROBERT CODMAN,
CHAS. U. COTTING,
Directors.
M. D. BENSON,
Treasurer.
JOHN ADAMS,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. BOSTON, November 15, 1879. Then personally appeared Messrs. William B. Stearns, Seth Bemis and Robert Codman, and severally made oath to the truth of the foregoing statement by them subscribed, to the best of their knowledge and belief.

CHAS. U. COTTING,
Justice of the Peace.

SUFFOLK, ss. BOSTON, November 15, 1879. Then personally appeared Mr. C. U. Cotting, and made oath to the truth of the foregoing statement by him subscribed, to the best of his knowledge and belief.

ROBERT CODMAN,
Justice of the Peace.

SUFFOLK, SS. November 15, 1879. Then personally appeared John Adams and Mason D. Benson, and severally made oath to the truth of the foregoing statement by them subscribed to the best of their knowledge and belief.

WM. B. STEARNS,

Justice of the Peace.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	63
Number of iron bridges (aggregate length, 459 feet) . . .	7
Number of wooden bridges (aggregate length, 6,352 feet) . . .	47
Number of crossings of highways at grade	54
Number of crossings of highways over railroad	11
Number of crossings of highways under railroad	8
Number of highway bridges 18 feet above track	9
Number of highway bridges less than 18 feet above track . . .	2
Number of crossings at which gates or flagmen are maintained, . . .	8
Number of crossings at which there are neither electric signals, . .	
gates nor flagmen	46
Number of railroad crossings at grade (specifying each): . . .	3
Boston, Barre & Gardner Railroad.	
Ware River.	
Connecticut River.	

CAPITAL STOCK.

Capital stock authorized by charter	\$4,700,000 00	
Capital stock authorized by votes of company	3,050,000 00	
Capital stock issued (number of shares, 30,500); amount paid in, . .		\$3,050,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO. . .		3,050,000 00
Total number of stockholders	1,149	
Number of stockholders in Massachusetts	974	
Amount of stock held in Massachusetts	\$2,791,100 00	

DEBT.

Funded debt, as follows:—Interest paid by Fitchburg R.R. Co.		
Mortgage bonds, due July 1, 1883, rate of interest 6 per cent,	\$550,000 00	
Interest paid on same during year	\$33,000 00	
Convertible bonds, due July 1, 1879, rate of interest 7 per . . .		P'd July 1, 1879
cent		
Interest paid on same during year	\$7,350 00	
Convertible bonds, due July 1, 1885, rate of interest 7 per cent,	\$150,000 00	
Interest paid on same during year	\$10,500 00	
TOTAL AMOUNT OF FUNDED DEBT		700,000 00

REPORT

OF THE

WARE RIVER RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston & Albany Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$55,177 96
Dividends declared (7 per cent)	52,500 00
Balance for the year (surplus)	2,677 96
Balance at commencement of year	41,850 38
Balance September 30, 1879 (surplus)	44,528 34
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$1,115,163 82
Cash	44,528 34
TOTAL ASSETS	\$1,159,692 16
LIABILITIES.	
Capital stock	\$750,000 00
Unfunded debt	365,163 82
Profit & Loss balance (surplus)	44,528 34
TOTAL LIABILITIES	\$1,159,692 16
DESCRIPTION OF ROAD.	
Length of main line of road	49.30 miles.
Length of main line of road in Massachusetts	49.30 "
Total length of road belonging to this company	49.30 "
Aggregate length of sidings and other tracks not above enumerated	4.32 "
Same in Massachusetts	4.32 "
Aggregate length of track, computed as single track	53.62 "
Same in Massachusetts	53.62 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 63 pounds.]	1.47 "
Number of stations on all roads owned by this company	11
Same in Massachusetts	11

NAME AND RESIDENCE OF OFFICERS.

J. A. Rumrill, *President*, Springfield, Mass. C. E. Stevens, *Treasurer*, Boston, Mass. E. W. Long, *Clerk of Corporation*, Springfield, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

J. A. Rumrill, Springfield, Mass. C. W. Chapin, Springfield, Mass. C. A. Stevens, Ware, Mass. E. B. Gillett, Westfield, Mass. William Mixter, Hardwick, Mass. C. A. Perley, Baldwinville, Mass. W. W. Whitney, Winchendon, Mass.

PROPER ADDRESS OF THE COMPANY.

WARE RIVER RAILROAD COMPANY,
SPRINGFIELD, MASS.

J. A. RUMRILL,
CHAS. A. STEVENS,
WILLIAM MIXTER,
EDW. B. GILLETT,
WM. W. WHITNEY,
C. A. PERLEY,
Directors.
C. E. STEVENS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

HAMPDEN, SS. SPRINGFIELD, October 25, 1879. Then personally appeared J. A. Rumrill, William Mixter, E. B. Gillett, W. W. Whitney, C. A. Perley and C. E. Stevens, and severally made oath to the truth of the foregoing statement by them subscribed.

P. S. BAILEY,
Notary Public.

GENERAL INFORMATION.

Number of spans of bridges, of 25 feet and upwards . . .	11
Number of iron bridges (aggregate length, 22 feet) . . .	1
Number of wooden bridges (aggregate length, 1,075.33 feet) . . .	11
Number of crossings of highways at grade . . .	54
Number of crossings of highways over railroad . . .	1
Number of crossings of highways under railroad . . .	5
Number of highway bridges 18 feet above track . . .	1
Number of crossings at which there are neither electric signals, gates nor flagmen . . .	54
Number of railroad crossings at grade (specifying each) . . .	2
Vermont & Massachusetts Railroad.	
Cheshire Railroad.	

CAPITAL STOCK.

Capital stock authorized by charter . . .	\$1,000,000 00
Capital stock authorized by votes of company . . .	750,000 00
Capital stock issued (number of shares 7,500); amount paid in, . . .	\$750,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. . .	750,000 00
Total number of stockholders . . .	110
Number of stockholders in Massachusetts . . .	107
Amount of stock held in Massachusetts . . .	728,400 00

REPORT

OF THE

WEST AMESBURY BRANCH RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Boston & Maine Railroad Company.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$5,700 00
Total expense (including taxes)	164 75
Net income	5,535 25
Interest accrued during the year:	3,990 00
On funded debt \$3,090 00	
Dividends declared (2½ per cent)	1,567 50
Balance for the year (deficit)	22 25
Balance at commencement of year	159 71
Balance September 30, 1879 (surplus)	137 46
ANALYSIS OF EARNINGS.	
Rents for use of road	\$5,700 00
ANALYSIS OF EXPENSES.	
Taxes	\$142 96
General salaries, office expenses and miscellaneous	21 79
TOTAL EXPENSES	\$164 75
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$114,000 00
Cash	340 46
TOTAL ASSETS	\$114,340 46
LIABILITIES.	
Capital stock	\$57,000 00
Funded debt	57,000 00
Interest unpaid	203 00
Profit & Loss balance	137 46
TOTAL LIABILITIES	\$114,340 46
DESCRIPTION OF ROAD.	
Length of main line of road from Merrimac, Mass., to Newton, N.H.	4.500 miles.
Length of main line of road in Massachusetts	2.250 "
Aggregate length of sidings and other tracks not above enumerated	.284 "
Same in Massachusetts	.119 "
Aggregate length of track, computed as single track	4.784 "
Same in Massachusetts	2.369 "
Number of stations on all roads owned by this company	2
Same in Massachusetts	1

NAME AND RESIDENCE OF OFFICERS.

William H. Haskell, *President*, Merrimac, Mass. John S. Poyen, *Treasurer*,
Merrimac, Mass. James D. Pike, *Clerk of Corporation*.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William H. Haskell, Merrimac, Mass. John S. Poyen, Merrimac, Mass.
William Gunnison, Merrimac, Mass. Alfred E. Goodwin, Merrimac, Mass.
William W. Wilder, Newton, N.H.

PROPER ADDRESS OF THE COMPANY.

WEST AMESBURY BRANCH RAILROAD COMPANY,
MERRIMAC, MASS.

WILLIAM H. HASKELL,
JOHN S. POYEN,
ALFRED E. GOODWIN,
Directors.
JOHN S. POYEN,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

ESSEX, SS. MERRIMAC, October 13, 1879. Then personally appeared William H. Haskell, John S. Poyen and Alfred E. Goodwin, Directors, and John S. Poyen, Treasurer, of West Amesbury Branch Railroad Company, and severally made oath to the truth of the foregoing statement by them subscribed.

D. J. POORE,
Justice of the Peace.

GENERAL INFORMATION.

Number of wooden bridges	1
Number of crossings of highways at grade	1
Number of crossings at which there are neither electric signals, gates nor flagmen	1

CAPITAL STOCK.

Capital stock authorized by charter	\$150,000 00	
Capital stock authorized by votes of company	114,000 00	
Capital stock issued (number of shares, 570); amount paid in		\$57,000 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE CO.		57,000 00
Total number of stockholders	31	
Number of stockholders in Massachusetts	29	
Amount of stock held in Massachusetts	\$56,300 00	

DEBT.

Funded debt, as follows:—		
Bonds due July 1, 1893, rate of interest 7 per cent		\$57,000 00

REPORT

OF THE

WEST STOCKBRIDGE RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Housatonic Railroad Company of Connecticut.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$1,860 83
Total expense (including taxes)	290 16
Net income	1,570 67
Dividends declared (4 per cent)	1,584 00
Balance for the year (deficit)	13 31
Balance at commencement of year	1,126 85
Balance September 30, 1879 (surplus)	1,113 52
ANALYSIS OF EARNINGS.	
Rents for use of road	\$1,812 86
Dividend on 8 shares stock	32 00
Interest	15 97
TOTAL INCOME FROM ALL SOURCES	\$1,860 83
ANALYSIS OF EXPENSES.	
Taxes	\$268 29
General salaries, office expenses and miscellaneous	21 87
TOTAL EXPENSES	\$290 16
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$39,600 00
Stock of W. S. R.R. Corporation	400 00
Cash	713 52
TOTAL ASSETS	\$40,713 52
LIABILITIES.	
Capital stock	\$39,600 00
Profit & Loss balance	1,113 52
TOTAL LIABILITIES	\$40,713 52
DESCRIPTION OF ROAD.	
Length of main line of road from West Stockbridge to N.Y.	
State line	2.75 miles.
Length of main line of road in Massachusetts	2.75 "
Aggregate length of sidings and other tracks not above enumerated	2.75 "

Same in Massachusetts	2.75 miles.
Aggregate length of track, computed as single track	5.50 "
Same in Massachusetts	5.50 "
Number of stations on all <i>roads owned</i> by this company	2
Same in Massachusetts	2

NAME AND RESIDENCE OF OFFICERS.

George H. Power, *President*, Hudson, N.Y. Henry W. Taft, *Treasurer and Clerk of Corporation*, Pittsfield, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

George H. Power, Hudson, N.Y. Henry W. Taft, Pittsfield, Mass. George W. Kniffin, West Stockbridge, Mass. Chester W. Chapin, Springfield, Mass. William Bliss, Springfield, Mass.

PROPER ADDRESS OF THE COMPANY.

WEST STOCKBRIDGE RAILROAD CORPORATION,
PITTSFIELD, MASS.

GEORGE H. POWER,
HENRY W. TAFT,
GEO. W. KNIFFIN,
Directors.
HENRY W. TAFT,
Treasurer.

STATE OF NEW YORK.

CITY OF HUDSON, COLUMBIA COUNTY, ss. Then personally appeared on the 28th day of October, 1879, George H. Power, who, being by me duly sworn, says the foregoing statement by him subscribed is true, and made oath to the truth of the foregoing statement by him subscribed.

HENRY MILLER,
Recorder of Hudson, N.Y.

COMMONWEALTH OF MASSACHUSETTS.

BERKSHIRE, ss. October 24, 1879. Then personally appeared Henry W. Taft, and made oath to the truth of the foregoing statement by him subscribed.

Before me,
WM. S. TUCKER,
Justice of the Peace.

BERKSHIRE, ss. October 31, 1879. Then personally appeared George W. Kniffin, and made oath to the truth of the foregoing statement by him subscribed.

Before me,
WM. C. SPAULDING,
Justice of the Peace.

GENERAL INFORMATION.		
Number of spans of bridges, of 25 feet and upwards . . .		6
Number of wooden bridges (aggregate length, 186 feet) . . .		6
Number of crossings of highways at grade		4
Number of crossings at which there are neither electric signals, gates nor flagmen		4
CAPITAL STOCK.		
Capital stock authorized by charter	\$75,000 00	
Capital stock issued (number of shares, 396); amount paid in . .		\$39,600 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co. . .		39,600 00
Total number of stockholders	20	
Number of stockholders in Massachusetts	18	
Amount of stock held in Massachusetts	\$39,100 00	

REPORT

OF THE

WORCESTER & NASHUA RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

GENERAL EXHIBIT FOR THE YEAR.

Total income		\$493,994 48
Total expense (including taxes)		307,587 63
Net income		186,406 85
Rentals:		74,274 00
Nashua & Rochester Railroad Company		
Interest accrued during year:		60,995 62
On funded debt	\$55,750 00	
On other debt	5,245 62	
Balance for the year (surplus)		51,137 23
Balance at commencement of year	\$229,766 98	
Deduct:	12,446 21	
Old fire losses	\$3,172 77	
Bad debts	1,582 15	
Old claims settled	4,651 07	
Sundries	3,040 22	
Balance at commencement of year as so changed		217,320 77
Balance September 30, 1879 (surplus)		268,458 00

ANALYSIS OF EARNINGS.

From local passengers		\$73,953 45
through passengers (to and from other roads)		94,801 82
express and extra baggage		7,905 16
mails		13,990 24
other sources, passenger department		3,240 04
<i>Total earnings from passenger department</i>		193,890 71
From local freight		65,474 04
through freight (to and from other roads)		203,218 02
other sources, freight department		10,499 11
<i>Total earnings from freight department</i>		279,191 17
TOTAL TRANSPORTATION EARNINGS		473,081 88
Income from all other sources:		20,912 60
Dividends on Nashua & Rochester R.R. stock, ...	\$14,259 00	
Rent of land and buildings	6,653 60	
TOTAL INCOME FROM ALL SOURCES		\$493,994 48

ANALYSIS OF EXPENSES.

Taxes		\$9,962 50
General salaries, office expenses and miscellaneous		15,554 20
Insurance		1,666 99
Telegraph expenses		202 75

Repairs of road	\$27,832 03
Iron rails	9,422 00
[Number of tons laid, 418.]	
New ties	6,588 20
[Number laid, 20,936.]	
Repairs of bridges	2,116 26
Repairs of buildings	9,970 14
Repairs of machine-shops and machinery	2,974 43
Repairs of fences, road crossings and signs	2,479 61
Removing ice and snow	1,477 50
Repairs of locomotives	17,879 12
Fuel, locomotive power	51,378 55
Water and water stations	1,772 73
Fuel for cars, stations, shops and stationary engines	1,181 46
Oil and waste	4,012 98
Switchmen, watchmen, flag and signal men	5,808 93
Repairs of passenger, mail and baggage cars	10,443 73
Damages and gratuities to passengers	140 21
Salaries, wages and incidentals of passenger trains	20,958 94
Salaries, wages and incidentals of passenger stations	22,397 75
Repairs of freight cars	27,997 76
Damages and gratuities, freight	307 19
Salaries, wages and incidentals of freight trains	21,714 11
Salaries, wages and incidentals of freight stations	31,347 56
TOTAL EXPENSES	\$307,587 63

PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.

Land, land damages and fences	\$55 50
Grading and masonry	327 00
Viaduct in Worcester	427 65
TOTAL EXPENDITURES CHARGED TO PROPERTY ACCOUNTS,	810 15
Land sold	15,500 00
NET DECREASE IN PROPERTY ACCOUNT FOR THE YEAR .	14,689 85

Balance Sheet September 30, 1879.

ASSETS.	
Construction account	\$2,121,789 86
Equipment account	390,086 03
Cash items (<i>as follows</i>):	45,319 75
Cash	\$23,164 43
Due from agents and companies	22,155 32
Other assets (<i>as follows</i>):	82,644 42
Materials and supplies	\$65,043 69
Debit balances	17,600 73
Nashua & Rochester Railroad stock, 4,753 shares, cost	475,300 00
TOTAL ASSETS	\$3,115,140 06
LIABILITIES.	
Capital stock	\$1,789,800 00
Funded debt	1,000,000 00
Unfunded debt (<i>as follows</i>):	56,882 06
Interest unpaid	\$3,145 00
Dividends unpaid	1,546 50
Notes payable	50,000 00
Vouchers and accounts	2,190 56
Profit & Loss balance	268,458 00
TOTAL LIABILITIES	\$3,115,140 06

Present or Contingent Liabilities not included in the Balance Sheet.

Bonds guaranteed by this company or a lien on its road: . . .	\$700,000 00
Nashua & Rochester Railroad bonds.	
Other liabilities:—	
3 per cent per annum on 13,058 shares of the capital stock of the Nashua & Rochester Railroad.	

MILEAGE, TRAFFIC, ETC.

Passenger-train mileage	190,839 miles.
Freight-train mileage	183,559 "
Switching-train mileage	3,139 "
Other train mileage	28,929 "
TOTAL TRAIN MILEAGE	406,466 "
Number of season-ticket passengers*.	48,316
Number of local passengers (including season)	209,382
Number of through passengers	113,543
TOTAL NUMBER OF PASSENGERS	322,925
Local passenger mileage (local passengers carried one mile)	2,859,217
Through passenger mileage (through passengers carried one mile)	3,309,654
Number of tons local freight carried	76,814
Number of tons through freight carried	305,349
TOTAL NUMBER OF TONS FREIGHT CARRIED	382,163
Local freight mileage (tons local freight carried one mile)	2,436,812
Through freight mileage (tons through freight carried one mile), ...	9,686,632
Average weight of passenger trains (exclusive of passengers)	145 tons.
Average number of cars in passenger trains	5
Average weight of freight trains (exclusive of freight)	262½ tons.
Average number of cars in freight train, basis of 8 wheels	25
Average number of persons employed	310

DESCRIPTION OF ROAD.

Length of main line of road from Worcester to Nashua	45.69 miles.
Length of main line of road in Massachusetts	39.6 "
Length of main line of road in New Hampshire	6.63 "
Length of double track on main line	16.83 "
Same in Massachusetts	16.83 "
Total length of road belonging to this company	45.69 "
Aggregate length of sidings and other tracks not above enumerated	13.78 "
Same in Massachusetts	10.86 "
Aggregate length of track, computed as single track	76.30 "
Same in Massachusetts	66.75 "
Total length of steel rails in tracks, not including steel-top rails, [Weights per yard, 56 to 57 pounds.]	14½ "

Roads and Branches belonging to other Companies, operated by this Company under Lease or Contract.

Nashua & Rochester Railroad in New Hampshire	48.81 miles.
Total miles of road operated by this company	94.50 "
Total miles of road operated by this company in Massachusetts, ...	39.6 "
Number of stations in Massachusetts on all roads operated by this company	13
Number of telegraph offices in same	10
Number of stations on all roads owned by this company	15
Same in Massachusetts	13

EQUIPMENT.

Number of locomotives	20
Number of passenger cars	19
Number of baggage, mail and express cars.	8
Number of parlor or sleeping cars	3
Number of freight cars (basis of 8 wheels)	367½

* Reckoning *twelve passengers* per week for time of each season ticket.

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .	-	-	-	-	-	-	-	-
Employés .	-	-	-	-	-	-	-	-
Others .	-	-	1	1	1	1	-	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

February 21, 1879. — Mrs. Thomas Logan was walking by side of the track a few rods above Garden-street Crossing, Worcester, as an engine and snow-gouger was coming south, and attempting to cross the track was struck by the engine and knocked down. Injuries were slight; a cut on forehead and bruise on leg being all.

September 27, 1879. — Mr. Daniel Sullivan was struck, while walking on track some thirty rods north of Groton Centre station, by the Sunday passenger train, and injured about head and shoulders. He lived but a few minutes.

NAME AND RESIDENCE OF OFFICERS.

F. H. Kinnicutt, *President*, Worcester, Mass. C. S. Turner, *General Manager and Superintendent*, Worcester, Mass. J. M. Williams, *General Freight Agent*, Worcester, Mass. C. A. Waite, *General Ticket Agent*, Worcester, Mass. H. N. Turner, *Travelling Passenger and Freight Agent*, Worcester, Mass. T. W. Hammond, *Treasurer and Clerk of Corporation*, Worcester, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

F. H. Kinnicutt, Worcester, Mass. Stephen Salisbury, Worcester, Mass. F. H. Dewey, Worcester, Mass. J. Edwin Smith, Worcester, Mass. E. B. Stoddard, Worcester, Mass. John D. Bryant, Boston, Mass. Thomas Chase, Nashua, N.H. C. H. Waters, Groton, Mass. C. B. Hill, Nashua, N.H.

PROPER ADDRESS OF THE COMPANY.

THE WORCESTER & NASHUA RAILROAD COMPANY,
WORCESTER, MASS.

F. H. KINNICUTT,
STEPHEN SALISBURY,
THOMAS CHASE,
FRANCIS H. DEWEY,
C. H. WATERS,
C. B. HILL,
E. B. STODDARD,
Directors.
T. W. HAMMOND,
Treasurer.
C. S. TURNER,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, SS. November 22, 1879. Then personally appeared F. H. Kin-
nicutt, Stephen Salisbury, Thomas Chase, Francis H. Dewey, C. H. Waters,
C. B. Hill, T. W. Hammond and C. S. Turner, and severally made oath to the
truth of the foregoing statement by them subscribed.

E. B. STODDARD,
Justice of the Peace.

GENERAL INFORMATION.

Maximum weight of locomotives in working order, including tenders	111,200 lbs.
Average weight of locomotives in working order, including tenders	96,057 "
Maximum weight of tenders full of fuel and water	40,000 "
Average weight of tenders full of fuel and water	35,165 "
Maximum weight of passenger cars (drawing room)	54,000 "
Average weight of passenger cars, including drawing room and passenger, with baggage rooms	40,202 "
Average weight of mail and baggage cars	33,437 "
Average weight of 8-wheel box freight cars	17,000 "
Average weight of 4-wheel box freight cars	9,150 "
Average weight of 8-wheel platform cars	14,000 "
Average weight of 4-wheel platform cars	8,000 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender,	42 feet.
Total length of heaviest engine and tender over all	52 "
Number of passenger cars with Miller platform and buffer	21
Number of spans of bridges, of 25 feet and upwards	5
Number of wooden bridges (aggregate length, 409 feet)	4
Number of crossings of highways at grade	38
Number of crossings of highways over railroad	7
Number of crossings of highways under railroad	8
Number of highway bridges 18 feet above track	4
Number of highway bridges less than 18 feet above track	3
Number of crossings at which gates or flagmen are maintained,	9
Number of crossings at which there are neither electric signals, gates nor flagmen	29
Number of railroad crossings at grade:	4
Boston, Barre & Gardner in Worcester.	
Boston, Clinton & Fitchburg & New Bedford at Clinton.	
Peterborough & Shirley and the Fitchburg at Ayer.	

RATES OF FARE, ETC.

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	3.81 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	2.86 "
Average rate of fare per mile for season-ticket passengers*	0.76 "
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	2.90 "
Average rate of local freight per ton per mile on roads operated by this company	2.69 "
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	2.10 "

CAPITAL STOCK.

Capital stock authorized by charter	\$2,100,000 00
Capital stock authorized by votes of company	1,789,800 00
Capital stock issued (number of shares, 17,898); amount paid in,	\$1,789,800 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	1,789,800 00
Total number of stockholders	990
Number of stockholders in Massachusetts	812
Amount of stock held in Massachusetts	\$1,547,200 00

* Reckoning *twelve passengers* per week for time of each season ticket.

DEBT.	
Funded debt, as follows:—	
Mortgage bonds, due January 1, 1881, rate of interest 6 per cent	\$75,000 00
Mortgage bonds, due May 1, 1887, rate of interest 6 per cent,	275,000 00
Mortgage bonds due April 1, 1893, rate of interest 7 per cent,	250,000 00
Mortgage bonds due February 1, 1895, rate of interest 6 per cent	400,000 00
TOTAL AMOUNT OF FUNDED DEBT	1,000,000 00

REPORT
OF THE
WORCESTER & SHREWSBURY RAILROAD COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.
[A Narrow-gauge Road.]

GENERAL EXHIBIT FOR THE YEAR.	
Total income	\$10,473 16
Total expense (including taxes)	8,962 80
Net income	1,310 36
Interest accrued during the year:	1,107 96
On funded debt	\$892 50
On other debt	215 46
Balance for the year (surplus)	402 40
Balance at commencement of year	3,496 87
Balance September 30, 1879 (surplus)	3,899 27
ANALYSIS OF EARNINGS.	
From passengers	\$10,473 16
ANALYSIS OF EXPENSES.	
Taxes	\$148 35
General salaries, office expenses and miscellaneous	1,671 87
Insurance	74 90
Repairs of road	1,256 82
Repairs of locomotives	1,006 43
Fuel, locomotive power	1,460 77
Water and water stations	54 63
Oil and waste	313 28
Repairs of passenger, mail and baggage cars	155 00
Salaries, wages and incidentals of passenger trains	2,670 75
Salaries, wages and incidentals of passenger stations	150 00
TOTAL EXPENSES	\$8,962 80
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Land, land damages and fences	\$70 85
Balance Sheet September 30, 1879.	
ASSETS.	
Construction account	\$34,804 52
Equipment account	20,281 17
Cash	712 51
TOTAL ASSETS	\$55,798 20

LIABILITIES.	
Capital stock	\$36,825 00
Funded debt	15,000 00
Vouchers and accounts	73 93
Profit & Loss balance	3,899 27
TOTAL LIABILITIES	\$55,798 20
MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	30,000 miles.
TOTAL TRAIN MILEAGE	30,000 "
TOTAL NUMBER OF PASSENGERS	116,368
Passenger mileage (passengers carried one mile)	314,194
Average weight of passenger trains (exclusive of passengers)	20 tons.
Average number of persons employed	6
DESCRIPTION OF ROAD.	
Length of main line of road from Washington Square to Lake Quinsigamond	2.7 miles.
Length of main line of road in Massachusetts	2.7 "
Number of stations on all roads owned by this company	4
Same in Massachusetts	4
EQUIPMENT.	
Number of locomotives	4
Number of passenger cars	6

NAME AND RESIDENCE OF OFFICERS.

E. B. Stoddard, *President*, Worcester, Mass. J. F. Bigelow, *Superintendent*, Worcester, Mass. Edward D. Stoddard, *Treasurer and Clerk of Corporation*, Worcester, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

E. B. Stoddard, H. H. Bigelow, Walter Henry, Warren McFarland, A. George Bullock, J. J. Coburn, Richard Barker, all of Worcester. Charles H. Willington, Oxford, Mass. George E. Hapgood, Shrewsbury, Mass.

PROPER ADDRESS OF THE COMPANY.

WORCESTER & SHREWSBURY RAILROAD,
WORCESTER, MASS.

E. B. STODDARD,
WALTER HENRY,
H. H. BIGELOW,
R. BARKER,
WARREN MCFARLAND,
J. J. COBURN,
C. H. WELLINGTON,
GEO. E. HAPGOOD,
Directors.
EDWARD D. STODDARD,
Treasurer.
J. F. BIGELOW,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, ss. October 24, 1879. Then personally appeared E. B. Stoddard, Walter Henry, H. H. Bigelow, R. Barker, Warren McFarland, J. J. Coburn, C. H. Willington and George E. Hapgood, Directors, and Edward D. Stoddard, Treasurer, and J. F. Bigelow, Superintendent, and severally made oath to the truth of the foregoing statement by them subscribed.

A. G. BULLOCK,

Justice of the Peace.

GENERAL INFORMATION.	
Number of crossings of highways at grade	3
Number of crossings at which there are neither electric signals, gates nor flagmen	3
CAPITAL STOCK.	
Capital stock authorized by charter	\$35,000 00
Capital stock authorized by votes of company	40,000 00
Capital stock issued (number of shares, 367); amount paid in	\$36,700 00
Capital stock paid in on shares not issued (number of shares, 5), ...	125 00
TOTAL AMOUNT PAID IN, AS PER BOOKS OF THE Co.	36,825 00
Total number of stockholders	51
Number of stockholders in Massachusetts	51
Amount of stock held in Massachusetts	\$36,700 00
DEBT.	
Funded debt, as follows:—	
Bonds, rate of interest, 7 per cent	\$15,000 00
Interest paid on same during year	\$892 50

REPORT OF THE HOUSATONIC RAILROAD COMPANY, OF CONNECTICUT,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[Showing Revenue, Expenses of Operating, Mileage, Traffic, etc., on roads leased and operated by company in Massachusetts, the same being the Berkshire, Stockbridge & Pittsfield, and West Stockbridge Railroads.]

ANALYSIS OF EARNINGS.	
From local passengers	\$34,473 43
through passengers (to and from other roads)	31,212 30
express and extra baggage	4,440 00
mails	4,110 77
<i>Total earnings from passenger department</i>	74,236 50
From local freight	57,840 50
through freight (to and from other roads)	73,139 50
other sources freight department (milk)	15,891 92
<i>Total earnings from freight department</i>	146,871 92
TOTAL TRANSPORTATION EARNINGS	221,108 42
Income from wharfage	490 34
TOTAL INCOME FROM ALL SOURCES	221,598 76
ANALYSIS OF EXPENSES.	
Taxes	\$3,765 05
General salaries, office expenses and miscellaneous	11,676 58
Insurance	678 02
Repairs of road	17,969 06
Steel rails	13,743 20
New ties	6,213 04
[Number laid, 16,348.]	
Repairs of bridges	1,230 96
Repairs of buildings	1,930 28
Repairs of machine-shops and machinery	704 51
Repairs of fences, road crossings and signs	741 01
Repairs of locomotives	5,313 23
Fuel, locomotive power	14,739 28
Water and water stations	289 63
Fuel for cars, stations, shops and stationary engines	1,204 02
Oil and waste	1,851 83
Repairs of passenger, mail and baggage cars	3,456 82
Damages and gratuities to passengers	111 00
Salaries, wages and incidentals of passenger trains and stations, ...	15,549 45
Repairs of freight cars	4,088 96
Damages and gratuities, freight	1,146 48
Salaries, wages and incidentals of freight trains and stations	26,274 47
Freight-car mileage (debit balances)	519 81
TOTAL EXPENSES	\$133,196 69

MILEAGE, TRAFFIC, ETC.	
Passenger-train mileage	84,093 miles.
Freight-train mileage	91,982 "
Other train mileage	9,490 "
TOTAL TRAIN MILEAGE	185,565 "
Number of local passengers (including season)	70,134
Number of through passengers	23,380
TOTAL NUMBER OF PASSENGERS	93,514
Local passenger mileage (local passengers carried one mile)	1,176,920
Through passenger mileage (through passengers carried one mile)	1,169,000
Number of tons of local freight carried	69,523
Number of tons through freight carried	109,450
TOTAL NUMBER OF TONS FREIGHT CARRIED	178,973
Local freight mileage (tons local freight carried one mile)	1,434,577
Through freight mileage (tons through freight carried one mile), ...	3,279,798
Average weight of passenger trains (exclusive of passengers)	112 tons.
Average number of cars in passenger trains	4
DESCRIPTION OF ROAD.	
Total miles of road operated by this company in Massachusetts, ...	46.75 miles.
Number of stations in Massachusetts on all roads operated by this company	16

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL. (IN MASSACHUSETTS.)		FROM THEIR OWN MISCONDUCT OR CARELESSNESS. (IN MASSACHUSETTS.)		TOTAL IN MASSACHUSETTS.		TOTAL ON WHOLE ROAD OPERATED.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	-	-	-	-	-	-	-	-
Employees	-	-	1	-	1	-	-	-
Others	-	-	2	-	2	-	-	-

STATEMENT OF EACH ACCIDENT IN MASSACHUSETTS.

February 10, 1879. — John Hillyer, 60 years of age, was instantly killed by engine of passenger train while driving with team over private crossing near Ashley Falls station.

May 9, 1879. — Augustus Garaway, 22 years of age, brakeman, fell between cars, and was almost instantly killed at Lee station.

June 16, 1879. — Thomas Larkin, 69 years of age, while walking on track, was struck and instantly killed by passenger train leaving Pittsfield at 5 P.M., about two miles below Lee station.

NAME AND RESIDENCE OF OFFICERS.

William H. Barnum, *President*, Lime Rock, Conn. David S. Draper, *Vice-President*, Bridgeport, Conn. L. B. Stillson, *Superintendent*, Bridgeport, Conn. H. C. Cogswell, *General Freight Agent*, Bridgeport, Conn. H. D. Averill, *General Passenger Agent*, Bridgeport, Conn. Charles K. Averill, *Treasurer*, Bridgeport, Conn.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William H. Barnum, Lime Rock, Conn. David S. Draper, William D. Bishop, Horace Nichols, Bridgeport, Conn. George W. Peet, Canaan, Conn. A. B. Mygatt, New Milford, Conn. Samuel Willits, Edward Leavitt, John B. Peck, New York, N.Y.

PROPER ADDRESS OF THE COMPANY.

HOUSATONIC RAILROAD COMPANY,
BRIDGEPORT, CONN.

DAVID S. DRAPER,
A. B. MYGATT,
Directors.
C. K. AVERILL,
Treasurer.
L. B. STILLSON,
Superintendent.

STATE OF CONNECTICUT.

COUNTY FAIRFIELD, ss. November 5, 1879. Then personally appeared David S. Draper and A. B. Mygatt, Directors, and L. B. Stillson, Superintendent, of the Housatonic Railroad Company, and severally made oath to the truth of the foregoing statement by them subscribed.

CHARLES K. AVERILL,
Notary Public.

FAIRFIELD COUNTY, ss. November 5, 1879. Then personally appeared C. K. Averill, Treasurer of the Housatonic Railroad Company, and made oath to the truth of the foregoing statement by him subscribed.

R. B. LACEY,
Notary Public.

GENERAL INFORMATION.

Maximum weight of locomotives in working order . . .	60,000 lbs.
Average weight of locomotives in working order . . .	58,000 "
Maximum weight of tenders full of fuel and water . . .	40,000 "
Average weight of tenders full of fuel and water . . .	38,000 "
Maximum weight of passenger cars . . .	44,000 "
Average weight of passenger cars . . .	36,000 "
Average weight of mail and baggage cars . . .	34,000 "
Average weight of 8-wheel box freight cars . . .	17,000 "
Average weight of 8-wheel platform cars . . .	14,000 "
Length of heaviest engine and tender, from centre of forward truck-wheel of engine to centre of rear wheel of tender .	41 ft. 9 in.
Total length of heaviest engine and tender over all . . .	51 " 10 "
Number of locomotives equipped with train-brake . . .	8
[Kind of brake: Vacuum.]	
Number of cars equipped with train-brake . . .	30
[Kind of brake: Vacuum.]	
Number of cars with Miller platform and buffer . . .	29

RATES OF FARE, ETC.	
Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company	3.63 cents.
Average rate of fare per mile <i>received</i> from passengers to and from other roads	2.67 “
Average rate of fare per mile <i>received</i> from <i>all</i> passengers	2.80 “
Average rate of local freight per ton per mile on roads operated by this company	15 “
Average rate of freight per ton per mile <i>received</i> from freight to and from other roads	2.23 “

NOTE.—The answers to questions under “General Information” in the foregoing reports, relating to crossings and bridges, refer only to those on miles of road in Massachusetts.

STREET RAILWAY RETURNS.

REPORT
OF THE
ALBANY STREET FREIGHT RAILWAY COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.
[Used for freight only.]

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK		
Capital stock authorized by charter	\$75,000 00	
Capital stock authorized by votes of company	50,000 00	
Capital stock paid in (par value of shares, \$100)		\$50,000 00
Number of stockholders	9	
DEBT.		
[None.]		
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
TOTAL COST OF CONSTRUCTION		\$49,066 29
Cash, cash assets and materials on hand		1,576 06
TOTAL PROPERTY AND ASSETS OF COMPANY		\$50,642 35
REVENUE FOR THE YEAR.		
Received from freight on railways operated by this company		\$1,179 00
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.		
Repairs of road-bed and track		\$122 21
Taxes, state and local		83 58
Office expenses, and all other expenses not included above		697 94
TOTAL EXPENSE OF OPERATING		\$903 73
Percentage of expenses to income	\$76.60	
NET INCOME, DIVIDENDS, &C.		
NET INCOME ABOVE OPERATING EXPENSES		\$275 27
Surplus at commencement of year		367 08
TOTAL SURPLUS September 30, 1879		642 35
General Balance Sheet at Closing of Accounts September 30, 1879.		
Dr.		
Construction		\$49,066 29
Cash and cash assets:		1,576 06
Cash	\$489 08	
Debit balances	1,086 98	
		\$50,642 35

Cr.	
Capital stock	\$50,000 00
Surplus	642 35
	\$50,642 35
Copy of Profit and Loss Account for the Year ending September 30, 1879.	
Dr.	
To Expenses	\$903 73
Balance September 30, 1879	642 35
	\$1,546 08
Cr.	
By Balance September 30, 1878	\$367 08
Total income	1,179 00
	\$1,546 08
DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings	.856 mile.
Aggregate length of switches, sidings, &c.	.076 "
Total length of track, measured as single track	.932 mile.
Total length of track paved	.856 "
Weight of rail per yard and description of rail (90 pounds: wrought, except 280 feet flat, and grooved, on curves).	

ADAMS AYER,
FRANCIS L. BULLARD,
Directors.
GEO. F. CHILD,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 5, 1879. Then personally appeared Adams Ayer, Francis L. Bullard, and severally made oath to the truth of the foregoing statement by them subscribed.

GEO. F. CHILD,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

ALBANY STREET FREIGHT RAILWAY COMPANY,
439 ALBANY STREET.

NAME AND RESIDENCE OF OFFICERS.

H. L. Leach, *President*, Boston, Mass. T. S. Hews, *Superintendent*, Boston, Mass. George F. Child, *Treasurer and Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

H. L. Leach, Adams Ayer, F. L. Bullard, George F. Child, all of Boston, Mass. F. D. Child, Providence, R.I.

REPORT

OF THE

ARLINGTON STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Union Railway Company.]

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$50,000 00	
Capital stock authorized by votes of company	15,000 00	
Capital stock paid in (par value of shares, \$50)		\$13,600 00
Number of stockholders	23	
DEBT.		
[None.]		
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
TOTAL COST OF CONSTRUCTION		\$13,558 46
Cash, cash assets and materials on hand		41 56
TOTAL PROPERTY AND ASSETS OF COMPANY		\$13,600 00
REVENUE FOR THE YEAR.		
Received from other railways as tolls or rent:—		
Union Railway Company		\$816 00
NET INCOME, DIVIDENDS, ETC.		
TOTAL NET INCOME ABOVE OPERATING EXPENSES		\$816 00
Dividends declared 6 per cent for the year		816 00
General Balance Sheet at Closing of Accounts September 30, 1879.		
DR.		
Construction		\$13,558 46
Cash		41 54
		\$13,600 00
CR.		
Capital stock		\$13,600 00
		\$13,600 00
Copy of Profit & Loss Account for the Year ending September 30, 1879.		
DR.		
To Dividends		\$816 00
CR.		
By Total income		\$816 00

DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings	1.576 miles.
Weight of rail per yard, and description of rail	33 lbs.

JOHN SCHOULER,
GEO. N. ELLIOT,
JAMES W. EMERY,
Directors.
FRED'K T. STEVENS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, ss. October 31, 1879. Then personally appeared John Schouler, George N. Elliot and James W. Emery, and severally made oath to the truth of the foregoing statement by them subscribed.

FRED'K T. STEVENS,
Justice of the Peace.

MIDDLESEX, ss. November 1, 1879. Then personally appeared Frederick T. Stevens, and made oath to the truth of the foregoing statement by him subscribed.

SAMUEL F. RUGG,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.
ARLINGTON RAILROAD COMPANY.
CAMBRIDGE, MASS.

NAME AND RESIDENCE OF OFFICERS.

John Schouler, *President*, Arlington, Mass. Frederick T. Stevens, *Treasurer*, Cambridge, Mass. Estes Howe, *Clerk of Corporation*, Cambridge, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

John Schouler, Arlington, Mass. George N. Elliot, Malden, Mass. James W. Emery, Cambridge, Mass.

REPORT OF THE BOSTON & CHELSEA STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[Leased to and operated by the Boston & Lynn Street Railway Company.]

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$300,000 00	
Capital stock authorized by votes of company	110,000 00	
Capital stock paid in (par value of shares, \$50)		\$110,000 00
Number of stockholders	79	
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
TOTAL COST OF CONSTRUCTION		\$110,000 00
Cash, cash assets and materials on hand		481 55
TOTAL PROPERTY AND ASSETS OF COMPANY		\$114,481 55
REVENUE FOR THE YEAR.		
Received from other railways as tolls or rent		\$8,800 00
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.		
Taxes, state and local		\$827 64
Office expenses, and all other expenses not included above		20 00
TOTAL EXPENSE OF OPERATING		\$847 64
NET INCOME, DIVIDENDS, ETC.		
TOTAL NET INCOME ABOVE OPERATING EXPENSES		\$7,952 36
Dividends declared (6 per cent for the year)		6,600 00
Balance for the year, or surplus		1,352 36
Surplus at commencement of year		3,129 19
TOTAL SURPLUS September 30, 1879		4,481 55
General Balance Sheet at Closing of Accounts September 30, 1879.		
Dr.		
Construction		\$110,000 00
Cash		4,481 55
		\$114,481 55
Cr.		
Capital stock		\$110,000 00
Surplus		4,481 55
		\$114,481 55

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.		
To Expenses		\$847 64
Dividends		6,600 00
Balance September 30, 1879		4,481 55
		\$11,929 19
CR.		
By Balance September 30, 1878		\$3,129 19
Total income		8,800 00
		\$11,929 19
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured		
as single track, exclusive of sidings	3.573 miles.	
Aggregate length of switches, sidings, etc.	.041 "	
Total length of track, measured as single track		3.614 miles.

WILLIAM W. WHEILDON,
 JAMES W. EMERY,
 ESTES HOWE,
 R. E. DEMMON,
 T. QUINCY BROWNE,
Directors.
 GEORGE W. PALMER,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 4, 1879. Then personally appeared W. W. Wheildon, Estes Howe, R. E. Demmon, T. Quincy Brown and George W. Palmer, and severally made oath to the truth of the foregoing statement by them subscribed.

JOSEPH M. PATTEN,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

BOSTON & CHELSEA RAILROAD COMPANY,
 27 TREMONT ROW, BOSTON, MASS.

NAME AND RESIDENCE OF OFFICERS.

W. W. Wheildon, *President*, Concord, Mass. George W. Palmer, *Treasurer and Clerk of Corporation*, Boston.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

W. W. Wheildon, Concord, Mass. James W. Emery, Cambridge, Mass. Estes Howe, Cambridge, Mass. Reuben E. Demmon, Boston. T. Quincy Browne, Boston. Joseph H. Converse, Cambridge, Mass. Gardner G. Hubbard, Cambridge, Mass.

REPORT

OF THE

CAMBRIDGE STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[Leased to and operated by the Union Railway Company.]

CAPITAL STOCK AND DEBTS.	
CAPITAL STOCK.	
Capital stock authorized by charter	\$1,000,000 00
Capital stock authorized by votes of company	1,000,000 00
Capital stock paid in (par value of shares, \$100)	\$893,000 00
Number of stockholders	609
DEBT.	
Mortgage bonds, due January, 1881-86	\$150,000 00
CASH ASSETS.	
Sinking fund	\$150,000 00
COST OF RAILWAY EQUIPMENT AND PROPERTY.	
TOTAL COST OF CONSTRUCTION	\$893,000 00
Cash, cash assets and materials on hand	150,000 00
TOTAL PROPERTY AND ASSETS OF COMPANY	\$1,043,000 00
Amount of sinking funds in hands of trustees	\$150,000 00
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Extension of tracks (number of feet, 7,043)	\$18,000 00
REVENUE FOR THE YEAR.	
Received from other railways as tolls or rent:—	
Union Railway Company	\$80,370 00
Income from other sources:—	
Union Railway Company	3,000 00
TOTAL INCOME FROM ALL SOURCES	\$83,370 00
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$83,370 00
Dividends declared, 9 per cent for the year	80,370 00
Balance for the year, or surplus	3,000 00
Paid to sinking funds in hands of trustees	3,000 00
General Balance Sheet at Closing of Accounts September 30, 1879.	
DR.	
Construction	\$893,000 00
Sinking fund	150,000 00
CR.	
Capital stock	\$893,000 00
Funded debt (mortgage)	150,000 00
	\$1,043,000 00

Copy of Profit & Loss Account for the Year ending September 30, 1879.

Dr.	
To Dividends	\$80,370 00
Sinking fund	3,000 00
	\$83,370 00
Cr.	
By Total income	\$83,370 00

DESCRIPTION OF RAILWAY.

Length of railway owned by company, measured as single track, exclusive of sidings	32.6708 miles.	
Aggregate length of switches, sidings, etc.	.8800 "	
Total length of track, measured as single track		33.5308 miles.
Total length of track paved (all the main track).		
Weight of rail per yard, and description of rail		47 lbs.

JOSEPH H. TYLER,
CALEB C. ALLEN,
ESTES HOWE.

Directors.

FRED'K T. STEVENS,

Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, ss. October 31, 1879. Then personally appeared Joseph H. Tyler, Caleb C. Allen and Estes Howe, and severally made oath to the truth of the foregoing statement by them subscribed.

FRED'K T. STEVENS,

Justice of the Peace.

MIDDLESEX, ss. November 1, 1879. Then personally appeared Frederick T. Stevens, and made oath to the truth of the foregoing statement by him subscribed.

SAMUEL F. RUGG,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.
CAMBRIDGE RAILROAD COMPANY,
CAMBRIDGE, MASS.

NAME AND RESIDENCE OF OFFICERS.

Joseph H. Tyler, *President*, Winchester, Mass. Frederick T. Stevens, *Treasurer and Clerk of Corporation*, Cambridge, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Joseph H. Tyler, Winchester, Mass. George P. Carter, Caleb C. Allen, James C. Fisk, Estes Howe, all of Cambridge, Mass.

REPORT OF THE HAVERHILL & GROVELAND STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$30,000 00	
Capital stock authorized by votes of company . .	24,000 00	
Capital stock paid in (par value of shares, \$100) . .		\$24,000 00
Number of stockholders	22	
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
Grading and paving		\$1,500 00
Track, including timber, rails, etc., and laying		13,700 00
TOTAL COST OF CONSTRUCTION		15,200 00
Horses		\$1,200 00
Cars		3,450 00
Other articles of equipment		2,050 00
TOTAL COST OF EQUIPMENT		6,600 00
Land owned by company needed in operating road . .		\$600 00
Buildings owned by company needed in operating road .		2,100 00
TOTAL COST OF LAND AND BUILDINGS		2,700 00
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC. .		\$24,600 00
Cash, cash assets and materials on hand		566 24
TOTAL PROPERTY AND ASSETS OF COMPANY		25,166 24
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.		
New horses		\$68 50
Land		300 00
TOTAL ADDITION TO PROPERTY		\$368 50
Property sold or reduced in valuation on the books: .		785 52
Construction	\$94 37	
Real estate	7 85	
Equipment	281 30	
Horse account	402 00	
NET REDUCTION TO PROPERTY FOR THE YEAR . . .		\$417 02

REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$9,101 67
Received from sales of manure	84 00
TOTAL EARNINGS	9,185 67
Income from other sources:—	
Advertising	75 00
TOTAL INCOME FROM ALL SOURCES	\$9,260 67
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$952 67
Repairs of cars and other vehicles, harness and horse-shoeing	673 86
Repairs of buildings	22 76
Renewal of horses	133 00
Wages and salaries of treasurer and superintendent	700 00
Wages and salaries of all other persons employed in operating the road	2,368 77
Provender	1,081 67
Taxes, state and local	155 31
Insurance	66 00
Office expenses, and all other expenses not included above	1,118 68
TOTAL EXPENSE OF OPERATING	\$7,274 72
Percentage of expenses to income	78.55
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$1,985 95
Dividends declared, 7 per cent for the year	1,680 00
Balance for the year, or surplus	305 95
Surplus at commencement of year	\$1,508 81
Deduct: entries made in Profit & Loss account during the year, not included in the foregoing statement	648 52
Surplus at commencement of year as changed by aforesaid entries	860 29
TOTAL SURPLUS September 30, 1879	1,166 24
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	3
Open cars	2
Horses	12
Harnesses (pairs of)	8
Omnibuses	1
Sleighs	2
General Balance Sheet at Closing of Accounts. September 30, 1879.	
DR.	
Construction	\$15,200 00
Equipment	6,700 00
Land and buildings	2,700 00
Cash	566 24
	\$25,166 24
CR.	
Capital stock	\$24,000 00
Surplus	1,166 24
	\$25,166 24

Copy of Profit & Loss Account for the Year ending September 30, 1879.

Dr.		
To Expenses		\$7,274 72
Dividends		1,680 00
Depreciation in value of road and equipment		648 52
Balance September 30, 1879		1,166 24
		\$10,769 48
Cr.		
By Balance September 30, 1878		\$1,508 81
Total income		9,260 67
		\$10,769 48
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured as single track, exclusive of sidings	3.113 miles.	
Aggregate length of switches, sidings, etc.	.167 "	
Total length of track, measured as single track		3.280 miles.
Total length of track paved		.776 "
Weight of rail per yard, and description of rail		30 lb. T, 35 flat.
MILES RUN.		
Total number of miles run during the year		35,101
Average cost per mile run	20.7 cents.	
Total number of passengers carried in the cars		132,867
Total number of round trips for the year		7,848
Average number of passengers per round trip	16.93	
Number of persons regularly employed by company		6
Rates of fare: 6 and 10 cts. cash, 4, 5 and 8 cts., ticket.		

JAMES D. WHITE,
EBEN MITCHELL,
GEO. W. DUNCAN,
LEVI TAYLOR,

Directors.

GEO. W. DUNCAN,
Treasurer and Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

ESSEX, ss. November 4, 1879. Then personally appeared James D. White, Eben Mitchell and George W. Duncan above named, and severally made oath to the truth of the foregoing statement by them subscribed.

IRA A. ABBOTT,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

HAVERHILL & GROVELAND STREET RAILWAY COMPANY,
HAVERHILL, MASS.

NAME AND RESIDENCE OF OFFICERS.

J. B. Swett, *President*, Haverhill, Mass. George W. Duncan, *Superintendent and Treasurer*, Haverhill, Mass. Ira A. Abbott, *Clerk of Corporation*, Haverhill, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

J. B. Swett, Eben Mitchell, Levi Taylor, James D. White and George W. Duncan, all of Haverhill, Mass.

REPORT

OF THE

HIGHLAND STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.	
CAPITAL STOCK.	
Capital stock authorized by charter and Act of Legislature	\$1,000,000 00
Capital stock authorized by votes of company	500,000 00
Capital stock paid in (par value of shares, \$100)	\$500,000 00
Number of stockholders	226
DEBT.	
Funded debt, as follows:	\$300,000 00
Bonds due 1883, rate of interest 7 per cent	\$150,000 00
Bonds due 1887, rate of interest 6 per cent	50,000 00
Bonds due 1898, rate of interest 6 per cent	100,000 00
Unfunded debt:	27,687 15
Note	\$25,000 00
Dividends unpaid	689 00
Tickets outstanding	1,998 15
TOTAL GROSS DEBT	327,687 15
Amount of cash assets:	28,213 21
Cash	\$16,238 21
Supplies	7,975 00
Debit balances	4,000 00
NET DEBT	299,473 94
COST OF RAILWAY, EQUIPMENT AND PROPERTY.	
RAILWAY.	
Track, including timber, rails, etc., and laying	\$266,500 16
Engineering, agencies, salaries and other expenses during construction	34,229 35
TOTAL COST OF CONSTRUCTION	300,729 51
EQUIPMENT, LAND AND BUILDINGS.	
Horses	\$101,439 00
Cars	123,650 22
Other articles of equipment	49,431 46
TOTAL COST OF EQUIPMENT	274,520 68
Land owned by company needed in operating road	72,510 87
Buildings owned by company needed in operating road	177,678 15
TOTAL COST OF LAND AND BUILDINGS	250,189 02

TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.	\$825,439 21
Cash, cash assets and materials on hand	28,213 21
TOTAL PROPERTY AND ASSETS OF COMPANY	853,652 42
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Extension of tracks (number of feet, 16,550)	\$54,747 92
New horses (number, 239)	27,140 00
New cars (number, 16)	14,211 00
Other equipment	6,770 22
Land and buildings	20,102 62
TOTAL ADDITION TO PROPERTY	122,971 76
Property sold or reduced in valuation on the books:	14,795 00
Horses sold	\$6,920 50
Horses charged to expense	7,544 50
Car sold	330 00
NET ADDITION TO PROPERTY FOR THE YEAR.	108,176 76
REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$344,672 62
Received from other railways as tolls or rent:—	
Metropolitan Railroad Company	4,417 52
Received from sales of manure	2,148 26
TOTAL EARNINGS	351,238 40
Income from other sources:—	
From coaches	1,055 77
TOTAL INCOME FROM ALL SOURCES	\$352,294 17
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$5,274 70
Repairs of cars and other vehicles, harness and horse-shoeing	23,129 36
Repairs of buildings	1,354 26
Renewal of horses	7,544 50
Wages and salaries of president, treasurer, superintendent and their clerks	17,515 00
Wages and salaries of all other persons employed in operating the road	146,610 01
Provender	50,711 72
Taxes, state and local	4,881 51
Rent and tolls paid other companies for use of their roads:—	
Middlesex Railroad Company	83 75
Metropolitan Railroad Company	16,386 99
Insurance	4,100 89
Damages for injuries to persons and property	2,360 00
Office expenses, and all other expenses not included above	8,355 09
TOTAL EXPENSE OF OPERATING	\$288,307 78
Percentage of expenses to income	81.80
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$63,986 39
Interest accrued during the year	25,612 23
Dividends declared, 8 per cent for the year	28,000 00
Balance for the year, or surplus	10,374 16
Surplus at commencement of year	15,591 11
TOTAL SURPLUS September 30, 1879	25,965 27

INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	70
Open cars	42
Horses	663
Harnesses (pairs of)	149
Omnibuses	4
Sleighs	2
General Balance Sheet at Closing of Accounts September 30, 1879.	
DR. *	
Construction	\$300,729 51
Equipment	274,520 68
Land and buildings	250,189 02
Cash and cash assets:	28,213 21
Cash	\$16,238 21
Supplies	7,975 00
Accounts due	4,000 00
	\$853,652 42
CR.	
Capital stock	\$500,000 00
Funded debt	300,000 00
Unfunded debt	25,000 00
Surplus	25,965 27
Dividends unpaid	689 00
Tickets outstanding	1,998 15
	\$853,652 42
Copy of Profit & Loss Account for the Year ending September 30, 1879.	
DR.	
To Expenses	\$288,307 78
Interest	25,612 23
Dividends	28,000 00
Balance September 30, 1879	25,965 27
	\$367,885 28
CR.	
By Balance September 30, 1878	\$15,591 11
Total income	352,294 17
	\$367,885 28
DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings	
Aggregate length of switches, sidings, etc.	13.273 miles.
Total length of track measured as single track	530 " 13.803 miles.
Total length of track paved	13.803 "
Weight of rail per yard, and description of rail (steel and iron)	48 lbs.
Description of the several lines or routes operated by the company:—	
Grove Hall to Temple Place, via Shawmut Avenue	7.953 miles.
Woodbine Street to Cornhill, via Shawmut Avenue	8. " "
Woodbine Street to Cornhill, via Blue Hill Avenue	8.05 " "
Northampton Street to Cornhill, via Columbus Avenue	4. " "
Dudley Street to Maine Depot, via Columbus Avenue	8. " "
Columbia Street to Maine Depot, via Shawmut Avenue	10.70 " "
Columbia Street to Temple Place, via Shawmut Avenue	8.703 " "

Length of railway belonging to other companies, measured as single track, not including sidings, etc., operated by this company, <i>or over which this company runs its cars</i> , with description of same:—		
Middlesex Railroad Company		.036 miles.
Metropolitan Railroad Company		5.452 “
Total length of railway measured as single track, not including sidings, etc., operated by this company		18.761 “
MILES RUN, ETC.		
Total number of miles run during the year		1,337,826
Average cost per mile run	21.55 cents.	
Total number of passengers carried in the cars		7,099,149
Total number of round trips for the year		204,503
Average number of passengers per round trip		35
Number of persons regularly employed by company		261
Rates of fare: 6 cents single fare; tickets, 5 cents.		

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL.		FROM THEIR OWN MISCONDUCT OR CARELESSNESS.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	2	—	7	—	—
Employés	—	—	—	—	—	—
Others	—	—	—	1	—	10

STATEMENT OF EACH ACCIDENT.

October 2, 1878. — A lady getting off car fell; claimed slight injury.

December 23, 1878. — A man riding on front platform with bundles dropped one; in stooping to recover it, fell into the street, and broke his arm.

April 11, 1879. — A car collided with a wagon; the driver of the wagon was bruised.

May 10, 1879. — A young girl dropped her gloves from seat of open car; without waiting for car to be stopped jumped off, and was badly bruised.

June 24, 1879. — A lady leaving car slipped on wet pavement, fell against the step of the car; claimed injury in the back.

June 28, 1879. — The lead horse on a double team became detached, and struck a boy playing on sidewalk, and slightly injured him.

June 29, 1879. — The horses on a car refused to start; in the effort to start them the pole struck a man on a car passing in opposite direction, and slightly injured him.

August 7, 1879. — A lady left car before it stopped; fell, and injured her back.

August 29, 1879. — A laborer on street swung his bar, and struck a car; was thrown down and slightly injured.

September 10, 1879. — A lady caught her dress on leaving car; was thrown down, and claims to be slightly injured.

MOODY MERRILL,
SAMUEL LITTLE,
JACOB PFAFF,
CHARLES J. HAYDEN,
HENRY PFAFF,
S. S. ROWE,

Directors.

SAMUEL LITTLE,

Treasurer.

JULIUS E. RUGG,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 3, 1879. Then personally appeared Moody Merrill, Samuel Little, Jacob Pfaff, Charles J. Hayden, Henry Pfaff, S. S. Rowe and Julius E. Rugg, and severally made oath to the truth of the foregoing statement by them subscribed.

THOS. WM. CLARKE,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

HIGHLAND STREET RAILWAY COMPANY,

SHAWMUT AVENUE, ROXBURY, MASS.

NAME AND RESIDENCE OF OFFICERS.

Moody Merrill, *President*, Boston, Mass. Julius E. Rugg, *Superintendent*, Boston, Mass. Samuel Little, *Treasurer*, Boston, Mass. John L. Swift, *Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Donald Kennedy, Boston, Mass. Henry Pfaff, Boston, Mass. Jacob Pfaff, Boston, Mass. Solomon S. Rowe, Boston, Mass. Charles J. Hayden, Boston, Mass. Joseph H. Chadwick, Hyde Park, Mass. Moody Merrill, Boston, Mass. Samuel Little, Boston, Mass.

REPORT

OF THE

LOWELL STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$100,000 00	
Capital stock authorized by votes of company	100,000 00	
Capital stock paid in		\$93,100 0
Number of stockholders	114	
DEBT.		
Unfunded debt		7,000 00
Amount of cash assets:		3,112 37
Cash	\$2,373 07	
Supplies	839 30	
NET DEBT		3,887 63
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
Grading and paving		\$16,416 99
Track, including timber, rails, etc., and laying		48,171 71
Interest during construction, commissions, discounts, etc.		69 97
Engineering, agencies, salaries and other expenses during construction		168 30
TOTAL COST OF CONSTRUCTION		64,826 97
EQUIPMENT, LAND AND BUILDINGS.		
Horses		\$9,100 40
Cars		15,665 85
Other articles of equipment		5,245 71
TOTAL COST OF EQUIPMENT		30,011 96
Land owned by company needed in operating road		4,000 00
Buildings owned by company needed in operating road		4,372 82
TOTAL COST OF LAND AND BUILDINGS		8,372 82
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.		103,211 75
Cash, cash assets and materials on hand		3,112 37
TOTAL PROPERTY AND ASSETS OF COMPANY		106,324 12
REVENUE FOR THE YEAR.		
Received from passengers on railways operated by this company, including tickets		\$35,219 63
Received from sales of manure		500 00
TOTAL EARNINGS		\$35,719 63

Income from other sources:	\$281 66
Advertising on cars	\$200 00
Sale of pigs	65 00
Rents	16 66
TOTAL INCOME FROM ALL SOURCES	\$36,001 29
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$2,719 25
Repairs of cars and other vehicles, harness and horse-shoeing	2,984 39
Repairs of buildings	26 80
Renewal of horses	1,286 00
Wages and salaries of president, treasurer, superintendent and their clerks	2,325 86
Wages and salaries of all other persons employed in operating the road	10,011 34
Provender	5,074 69
Taxes, state and local	166 73
Insurance	286 51
Damages for injuries to persons and property	155 00
Office expenses, and all other expenses not included above	2,661 78
TOTAL EXPENSE OF OPERATING	\$27,698 33
Percentage of expenses to income	76.9
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$8,302 96
Interest accrued during the year	720 00
Balance for the year, or surplus	7,582 96
Deficit at commencement of year	1,358 84
TOTAL SURPLUS September 30, 1879	6,224 12
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	19
Horses	59
Harnesses (pairs of)	23
Omnibuses	1
Sleighs	9
General Balance Sheet at Closing of Accounts September 30, 1879.	
Dr.	
Construction	\$64,826 97
Equipment	30,011 96
Land and buildings	8,372 82
Cash and cash assets:	3,112 37
Cash	\$2,273 07
Supplies	839 30
	\$106,324 12
Cr.	
Capital stock	\$93,100 00
Unfunded debt	7,000 00
Surplus	6,224 12
	\$106,324 12

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.		
To Balance September 30, 1878	\$1,358 84	
Expenses	27,698 33	
Interest	720 00	
Balance forward	6,224 12	
		\$36,001 29
CR.		
By Total income	\$36,001 29	
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured as single track, exclusive of sidings		
Aggregate length of switches, sidings, etc.	4.611 miles.	
Total length of track, measured as single track	.216 "	4.827 miles.
Total length of track paved		4 $\frac{1}{8}$ "
Weight of rail per yard, and description of rail, 28 $\frac{1}{2}$, 33 & 48 lbs.		
Description of the several lines or routes operated by the company: —		
Belvidere to Pawtucket Falls	1.824 miles.	
Middlesex and Branch Street	1.053 "	
Centralville Branch	.734 "	
Post Office to Bleachery	1.000 "	
MILES RUN, ETC.		
Total number of miles run during the year		149,449
Average cost per mile run	18 $\frac{1}{2}$ cents.	
Total number of passengers carried in the cars		675,698
Total number of round trips for the year		16,605
Average number of passengers per round trip	40 $\frac{3}{8}$	
Number of persons regularly employed by company		25
Rates of fare: 4, 5 and 6 cents.		

WM. E. LIVINGSTON,
J. A. CHASE,
JOHN A. GOODWIN,
Directors.
J. A. CHASE,
Treasurer and Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, ss. LOWELL, November 6, 1879. Then personally appeared William E. Livingston, J. A. Chase and John A. Goodwin, and severally made oath to the truth of the foregoing statement by them subscribed.

W. R. BATCHELDER,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.
LOWELL HORSE RAILROAD COMPANY,
21 MERRIMACK STREET, LOWELL, MASS.

NAME AND RESIDENCE OF OFFICERS.

William E. Livingston, *President*, Lowell, Mass. James A. Chase, *Superintendent, Treasurer and Clerk of Corporation.*

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William E. Livingston, Lowell, Mass. James A. Chase, Lowell, Mass. John A. Goodwin, Lowell, Mass. George M. Kennedy, Syracuse, N.Y. Joel Thayer, Skaneateles, N.Y.

REPORT

OF THE

LYNN & BOSTON STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$200,000 00	
Capital stock authorized by votes of company	200,000 00	
Capital stock paid in (par value of shares, \$100)		\$200,000 00
Number of stockholders	100	
DEBT.		
Funded debt, as follows:—		
Mortgage bonds, due January 1, 1885, rate interest 6 per cent,		50,000 00
Unfunded debt, as follows:		24,780 61
Notes payable	\$6,000 00	
Tickets outstanding	4,108 98	
Sundry accounts	14,671 63	
TOTAL GROSS DEBT		\$74,780 61
Amount of cash assets:		27,316 32
Cash	\$4,844 19	
Supplies	2,637 45	
Sinking fund	18,500 00	
Debit balances	1,334 68	
NET DEBT		\$47,464 29
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$154,605 41
EQUIPMENT, LAND AND BUILDINGS.		
Horses		25,800 00
Cars		27,475 00
Other articles of equipment		8,450 00
TOTAL COST OF EQUIPMENT		61,725 00
TOTAL COST OF LAND AND BUILDINGS		32,252 80
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.,		248,583 21
Cash, cash assets and materials on hand		27,316 32
TOTAL PROPERTY AND ASSETS OF COMPANY		275,899 53
Amount of sinking funds in hands of trustees (\$18,500).		
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.		
Extension of tracks (number of feet, 5,246)		\$6,605 41

New horses (number, 35)	\$3,500 00
Land and buildings	8,002 80
TOTAL ADDITION TO PROPERTY	18,108 21
Property sold or reduced in valuation on the books:—	
Depreciation on construction	12,000 00
NET ADDITION TO PROPERTY FOR THE YEAR	6,108 21

REVENUE FOR THE YEAR.

Received from passengers on railways operated by this company, including tickets	\$153,157 64
Received from other railways as tolls or rent:—	
Lynn City Street Railway Company	950 00
Received from sales of manure	1,199 04
TOTAL INCOME FROM ALL SOURCES	155,306 68

EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.

Repairs of road-bed and track	\$15,719 93
Repairs of cars and other vehicles, harness and horse-shoeing	16,946 79
Repairs of buildings	1,283 61
Renewal of horses	4,042 10
Wages and salaries of president, treasurer, superintendent and their clerks	6,291 32
Wages and salaries of all other persons employed in operating the road	48,076 67
Provender	18,481 62
Taxes, state and local	645 77
Rent and tolls paid other companies for use of their roads:	17,209 50
Boston & Chelsea	\$8,800 00
Middlesex	5,230 91
Winnisimmet	2,891 30
Metropolitan	287 29
Insurance	667 30
Damages for injuries to persons and property	1,164 52
Office expenses, and all other expenses not included above	10,291 01
TOTAL EXPENSE OF OPERATING	140,820 14
Percentage of expenses to income	90.67

NET INCOME, DIVIDENDS, ETC.

TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$14,486 54
Interest accrued during the year	3,181 77
Balance for the year, or surplus	11,304 77
Surplus at commencement of year	\$1,814 15
Deduct entries made in Profit & Loss account during the year, not included in the foregoing statement	12,000 00
Surplus at commencement of year as changed by aforesaid entries to deficit	10,185 85
TOTAL SURPLUS September 30, 1879	1,118 92
Paid to sinking funds in hands of trustees	\$1,000 00

INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.

Box-cars	32
Open cars	23
Horses	253
Harnesses (pairs of)	69
Sleighs	8

Other articles of equipment:—

Snow ploughs, snow sleds, levellers, buggy, wagons, hay-puller, tools for road repairs, tools in paint, wood and blacksmiths' shops, horse collars, blankets, halters, surcingles, tip-carts, light harnesses, office and stable furniture, etc.

General Balance Sheet at Closing of Accounts September 30, 1879.

Dr.		
Construction		\$154,605 41
Equipment		61,725 00
Land and buildings		32,252 80
Cash and cash assets:		27,316 32
Cash	\$4,844 19	
Supplies	2,637 45	
Sinking fund	18,500 00	
Debit balances	1,334 68	

\$275,899 53

Cr.		
Capital stock		\$200,000 00
Funded debt		50,000 00
Unfunded debt		24,780 61
Surplus		1,118 92

\$275,899 53

Copy of Profit & Loss Account for the Year ending September 30, 1879.

Dr.		
To Expenses		\$140,820 14
Interest		3,181 77
Depreciation on construction		12,000 00
Balance September 30, 1879		1,118 92

\$157,120 83

Cr.		
By Balance September 30, 1878		\$1,814 15
Total income		155,306 68

\$157,120 83

DESCRIPTION OF RAILWAY.

Length of railway owned by company, measured as single track, exclusive of sidings	10.7324+ miles.	
Aggregate length of switches, sidings, etc.	.6159+ "	
Total length of track, measured as single track		11.3483+ ms.
Total length of track paved		4.463+ "
Weight of rail per yard, and description of rail (25 and 45 lbs. per yard, street rail pattern).		

Description of the several lines or routes operated by the company:—

- Franklin Street & Pine Grove Cemetery (in Lynn).
- West Lynn & Swampscott.
- Swampscott, Lynn & Boston.
- Revere & Boston (including Revere Beach in summer).
- Chelsea & Boston (via Charlestown).

Length of railway belonging to other companies, measured as single track, not including sidings, etc., operated by this company, or over which this company runs its cars, with description of same:		6.044+ ms.
Boston & Chelsea Railroad	2.159+ miles.	
Winnisimmet Railroad	.964+ "	
Middlesex Railroad	2.838+ "	
Metropolitan Railroad	.083+ "	

Total length of railway measured as single track, not including sidings, etc., operated by this company	16.776 miles.
---	---------------

MILES RUN, ETC.

Total number of miles run during the year	494,080
---	---------

Average cost per mile run	28.50 cents	
Total number of passengers carried in the cars		2,557,639
Total number of round trips for the year		65,186
Average number of passengers per round trip	39.23	
Number of persons regularly employed by company		about 104
Rates of fare: 4 to 20 cents.		

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL.		FROM THEIR OWN MISCONDUCT OR CARELESSNESS.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	—	—	1	—	1
Employés	—	—	—	—	—	—
Others	—	1	—	1	—	2

STATEMENT OF EACH ACCIDENT.

March 1, 1879. — A man with several bundles and a basket was about to get on front platform of a Middlesex Railroad car, when a Chelsea car, passing in opposite direction, was thrown sideways by the rear wheels “jumping a switch,” striking the man and bruising his arm; injury slight.

June 14, 1879. — Lady stepped from a car in motion, and was thrown down; slight injury to her person and clothing.

September 15, 1879. — 7 o'clock P.M. Several small boys were playing round the rear end of a Middlesex Railroad car in motion, and suddenly one of them jumped from behind the said car directly against the horses attached to a Chelsea car passing in the opposite direction, and was thrown down and received a fracture of collar-bone and some other bruises; none serious.

AMOS F. BREED,
WM. SPRAGUE,
PETER SMITH,
ASA A. BREED,
JOHN REED,
ISAAC STEBBINS,
G. W. W. DOVE,
E. F. OLIVER,
Directors.
E. F. OLIVER,
Treasurer.
S. A. GREEN,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 5, 1879. Then personally appeared Amos F. Breed, William Sprague, Peter Smith, Asa A. Breed, John Reed, Isaac Stebbins, G. W. W. Dove and E. F. Oliver, Directors, E. F. Oliver, Treasurer, and S. A.

Green, Superintendent, and severally made oath to the truth of the foregoing statement by them subscribed.

THOS. P. PROCTOR,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

LYNN & BOSTON RAILROAD COMPANY,
73 CORNHILL, BOSTON, MASS.

NAME AND RESIDENCE OF OFFICERS.

Amos F. Breed, *President*, Lynn, Mass. Stephen A. Green, *Superintendent*, Revere, Mass. E. F. Oliver, *Treasurer and Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Amos F. Breed, Lynn, Mass. Asa A. Breed, Lynn, Mass. Isaac Stebbins, Chelsea, Mass. Thomas P. Proctor, Boston, Mass. William Sprague, Boston, Mass. Benjamin P. Winslow, Boston, Mass. (since deceased). John Reed, Boston, Mass. E. F. Oliver, Boston, Mass. Peter Smith, Andover, Mass. George W. W. Dove, Andover, Mass.

REPORT
OF THE
LYNN CITY STREET RAILWAY COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.			
CAPITAL STOCK.			
Capital stock authorized by charter	\$25,000	00	
Capital stock authorized by votes of company	25,000	00	
Capital stock paid in (par value of shares, \$100).			\$19,900 00
Number of stockholders		57	
DEBT.			
Notes payable			\$7,000 00
Bills payable			720 32
TOTAL GROSS DEBT			\$7,720 32
Amount of cash assets:			2,679 12
Cash	\$2,303	72	
Supplies	292	00	
Notes receivable	83	40	
NET DEBT			5,041 20
COST OF RAILWAY, EQUIPMENT AND PROPERTY.			
RAILWAY.			
Grading and paving	\$248	56	
Track, including timber, rails, etc., and laying	18,583	32	
Interest during construction, commissions, discounts, etc.		117 07	
Engineering, agencies, salaries and other expenses during construction		130 70	
TOTAL COST OF CONSTRUCTION			\$19,079 65
EQUIPMENT, LAND AND BUILDINGS.			
Horses	\$2,469	75	
Cars	5,926	20	
Other articles of equipment	1,591	98	
TOTAL COST OF EQUIPMENT			9,987 93
Buildings owned by company needed in operating road			3,564 95
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.			32,632 53
Cash, cash assets and materials on hand			2,679 12
TOTAL PROPERTY AND ASSETS OF COMPANY			35,311 65
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.			
New horses (number, 3)			\$290 25

REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$12,010 49
Received from sales of manure	195 72
TOTAL EARNINGS	12,206 21
Income from other sources:—	
Letting horses, carrying parties, etc.	224 00
TOTAL INCOME FROM ALL SOURCES	\$12,430 21
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$278 15
Repairs of cars and other vehicles, harness and horse-shoeing	770 83
Repairs of buildings	8 42
Renewal of horses	50 00
Wages and salaries of president, treasurer, superintendent and their clerks	1,300 00
Wages and salaries of all other persons employed in operating the road	2,589 78
Provender	2,481 21
Taxes, state and local	280 76
Rent and tolls paid other companies for use of their roads:—	
Lynn & Boston Railroad Company	950 00
Insurance	130 25
Office expenses and all other expenses not included above	855 22
TOTAL EXPENSE OF OPERATING	9,694 62
Percentage of expenses to income	77.98
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$2,735 59
Interest accrued during the year	421 75
Dividends declared, 5 per cent for the year	995 00
Balance for the year, or surplus	1,318 84
Surplus at commencement of year	6,372 49
TOTAL SURPLUS September 30, 1879	7,691 33
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	5
Open cars	1
Horses	20
Harnesses (pairs of)	8
Sleighs	2
Other articles of equipment:—	
Snow plough, hay wagon, stoves, desk, office furniture, etc.	
General Balance Sheet at Closing of Accounts September 30, 1879.	
.DR.	
Construction	\$19,079 65
Equipment	9,987 93
Land and buildings	3,564 95
Cash and cash assets:	2,679 12
Cash	\$2,303 72
Supplies	292 00
Notes receivable	83 40
	\$35,311 65
Cr.	
Capital stock	\$19,900 00
Unfunded debt	7,720 32
Surplus	7,691 33
	\$35,311 65

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.		
To Expenses		\$9,694 62
Interest		421 75
Dividends		995 00
Balance September 30, 1879		7,691 33
		\$18,802 70
CR.		
By Balance September 30, 1878		\$6,372 49
Total income		12,430 21
		\$18,802 70
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured as single track, exclusive of sidings		
as single track, exclusive of sidings		1.964 miles.
Aggregate length of switches, sidings, etc.		.067 "
Total length of track, measured as single track		2.031 miles.
Total length of track paved		.227 "
Weight of rail per yard, and description of rail		35 lbs.
Description of the several lines or routes operated by the company:—		
Market and Oxford Streets, Central Avenue, Union, Chestnut and Essex Streets to Upper Swampscott.		
Market and Oxford Streets, Central Avenue, Union, Chestnut, Essex, Chatham and Maple Streets to Glenmere.		
Length of railway belonging to other companies, measured as single track, not including sidings, etc., operated by this company, <i>or over which this company runs its cars</i> , with description of same:—		
Lynn & Boston Railway Company		.952 mile.
Market and Oxford Streets; Central Avenue; Union and Chestnut Streets.		
Total length of railway measured as single track, not including sidings, etc., operated by this company		2.916 miles.
MILES RUN, ETC.		
Total number of miles run during the year		43,359
Average cost per mile run		22.36 cents.
Total number of passengers carried in the cars		228,047
Total number of round trips for the year		9,856
Average number of passengers per round trip		23
Number of persons regularly employed by company		7
Rates of fare: 6 cents; 5 tickets for 25 cents.		

M. V. B. MOWER,
 ALFRED A. MOWER,
 ALDEN CHOATE,
 H. C. JEWETT,
 J. BULFINCH,
 BENJAMIN DUPAR,
Directors.
 J. F. WITHEY,
Treasurer.
 JOHN MUDGE,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

ESSEX, ss. October 9, 1879. Then personally appeared M. V. B. Mower, Alfred A. Mower, Alden Choate, H. C. Jewett, J. Bulfinch, Benjamin Dupar, John Mudge and J. F. Withey, and severally made oath to the truth of the foregoing statement by them subscribed.

BENJAMIN A. WARD,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

LYNN CITY STREET RAILWAY COMPANY,
TREASURER'S OFFICE OVER 168 UNION STREET, LYNN, MASS.

NAME AND RESIDENCE OF OFFICERS.

M. V. B. Mower, *President*, Lynn, Mass. John Mudge, *Superintendent*, Lynn, Mass. J. F. Withey, *Treasurer*, Lynn, Mass. J. Bulfinch, *Clerk of Corporation*, Lynn, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

M. V. B. Mower, A. A. Mower, J. Bulfinch, Isaac Newhall (deceased), John Mudge, Alden Choate, Benjamin Dupar, Henry P. Jewett and Oliver Ramsdell, all of Lynn, Mass.

REPORT OF THE MALDEN & MELROSE RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[Leased to and operated by the Middlesex Railway Company.]

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$200,000 00	
Capital stock authorized by votes of company . .	165,500 00	
Capital stock paid in (par value of shares, \$100)		\$165,500 00
Number of stockholders	51	
DEBT.		
Funded debt, as follows:—		
Bonds due 1883, rate interest 6 per cent		\$15,000 00
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$60,246 48
General Balance Sheet at Closing of Accounts September 30, 1879.		
DR.		
Construction		\$60,246 48
Deficit		120,253 52
		\$180,500 00
CR.		
Capital stock		\$165,500 00
Funded debt		15,000 00
		\$180,500 00
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured as single track, exclusive of sidings	3.500 miles.	
Aggregate length of switches, sidings, etc.	.333 “	
Total length of track, measured as single track		3.833 miles.
Total length of track paved		1.250 “
Weight of rail per yard, and description of rail (street and T rail, 45 and 35 lbs.)		

NOTE. — In 1862 this road was leased to the Middlesex Railroad Company for a term of years. By the terms of the lease the lessees were to pay the interest on the mortgage bonds, and pay the bonds at maturity; and, after deducting from the net profits of running their roads, together with the several roads operated by them, the sum of nine per cent per annum on their capital, to pay the balance (should there be any) of the net profits to this company, until the sum shall equal an annual dividend of eight per cent on 1,655 shares of its capital stock.

CHAS. E. POWERS,
THOMAS E. BARRY,
GEO. W. PALMER,
LINUS M. CHILD,

Directors.

CHARLES E. POWERS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 4, 1879. Then personally appeared Charles E. Powers, Thomas E. Barry, George W. Palmer and Linus M. Child, and severally made oath to the truth of the foregoing statement by them subscribed.

JOSEPH M. PATTEN,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

MALDEN & MELROSE RAILROAD COMPANY,
27 TREMONT ROW (corner Pemberton Square), BOSTON, MASS.

NAME AND RESIDENCE OF OFFICERS.

Charles E. Powers, *President and Treasurer.* J. H. McFarland, *Clerk of Corporation.*

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Charles E. Powers, 275 Beacon Street, Boston, Mass. George W. Palmer, 24 Union Park, Boston, Mass. Thomas E. Barry, Columbus Avenue, Boston, Mass. Linus M. Child, 425 Beacon Street, Boston, Mass. J. H. McFarland, Boston, Mass.

REPORT

OF THE

MEDFORD & CHARLESTOWN STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[Leased to and operated by the Middlesex Railway Company.]

CAPITAL STOCK AND DEBTS.	
CAPITAL STOCK.	
Capital stock authorized by charter	\$200,000 00
Capital stock authorized by votes of company	25,000 00
Capital stock paid in (par value of shares, \$50)	\$21,000 00
Number of stockholders	25
DEBT.	
TOTAL GROSS DEBT	\$21,544 74
Cash	194 01
NET DEBT	\$21,350 73
COST OF RAILWAY, EQUIPMENT AND PROPERTY.	
RAILWAY.	
TOTAL COST OF CONSTRUCTION.	\$49,595 07
Cash, cash assets and materials on hand	194 01
TOTAL PROPERTY AND ASSETS OF COMPANY	\$49,789 08
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Extension of tracks	\$16,364 09
REVENUE FOR THE YEAR.	
(Rent suspended on account of tracks being removed by the authorities of Medford and Somerville.)	
General Balance Sheet at Closing of Accounts September 30, 1879.	
DR.	
Construction	\$49,595 07
Cash	194 01
	\$49,789 08
CR.	
Capital stock	\$21,000 00
Unfunded debt	21,544 74
Surplus	7,244 34
	\$49,789 08

278 MEDFORD & CHARLESTOWN ST. RAILWAY. [Jan.

DESCRIPTION OF RAILWAY.			
Length of railway owned by company, measured as single track, exclusive of sidings . . .	1.250 miles.		
Aggregate length of switches, sidings, etc. . . .	.270 "		
Total length of track, measured as single track			1.520 miles.

LUTHER FARWELL,
CHARLES E. POWERS,
Directors.
LUTHER FARWELL,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 4, 1879. Then personally appeared Luther Farwell and Charles E. Powers, and severally made oath to the truth of the foregoing statement by them subscribed.

JOSEPH M. PATTEN,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

MEDFORD & CHARLESTOWN RAILROAD COMPANY,
BOSTON, MASS.

NAME AND RESIDENCE OF OFFICERS.

Luther Farwell, *President and Treasurer*, Boston, Mass. Charles Cummings, *Clerk of Corporation*, Medford, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Luther Farwell, 413 Columbus Avenue, Boston, Mass. Daniel W. Lawrence, Medford, Mass. Charles Cummings, Medford, Mass. Charles E. Powers, 275 Beacon Street, Boston, Mass.

REPORT

OF THE

MERRIMACK VALLEY STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$80,000 00	
Capital stock authorized by votes of company	50,000 00	
Capital stock paid in (par value of shares, \$100)		\$50,000 00
Number of stockholders	81	
DEBT.		
[None.]		
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
Grading and paving		\$2,000 00
Track, including timber, rails, etc., and laying		19,000 00
TOTAL COST OF CONSTRUCTION		21,000 00
EQUIPMENT, LAND AND BUILDINGS.		
Horses		\$4,500 00
Cars		4,400 00
Other articles of equipment		1,200 00
TOTAL COST OF EQUIPMENT		10,100 00
Land owned by company needed in operating road		6,000 00
Buildings owned by company needed in operating road		5,000 00
TOTAL COST OF LAND AND BUILDINGS		11,000 00
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.		42,100 00
Cash, cash assets and materials on hand		15,088 94
TOTAL PROPERTY AND ASSETS OF COMPANY		57,188 94
Amount of sinking funds in hands of trustees (\$7,000).		
PROPERTY ACCOUNTS : CREDITS DURING THE YEAR.		
Horse account, reduced		\$500 00
Equipment account, reduced		1,500 00
NET REDUCTION OF PROPERTY FOR THE YEAR		2,000 00
REVENUE FOR THE YEAR.		
Received from passengers on railways operated by this company, including tickets		\$32,825 51
Received from sales of manure		496 00
TOTAL EARNINGS		33,321 51

280 MERRIMACK VALLEY STREET RAILWAY. [Jan.

Income from other sources:—

Rent of office	\$200 00
Interest received	424 56
TOTAL INCOME FROM ALL SOURCES	33,946 07

EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.

Repairs of road-bed and track	\$4,432 63
Repairs of cars and other vehicles, harness and horse-shoeing, ...	2,926 20
Repairs of buildings	139 27
Renewal of horses	607 50
Wages and salaries of president, treasurer, superintendent and their clerks	1,400 00
Wages and salaries of all other persons employed in operating the road	9,492 27
Provender	5,775 28
Taxes, state and local	590 04
Insurance	148 75
Office expenses, and all other expenses not included above	694 40
TOTAL EXPENSE OF OPERATING	26,206 34
Percentage of expenses to income (77 per cent).	

NET INCOME, DIVIDENDS, ETC.

TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$7,739 73
Dividends declared, 6 per cent for the year	3,000 00
Balance for the year, or surplus	4,739 73
Surplus at commencement of year	\$4,449 21
Deduct: entries made in Profit & Loss account during the year, not included in the foregoing statement:—	
Reduction of horse account	500 00
Reduction of equipment account	1,500 00
Surplus at commencement of year as changed by aforesaid entries	2,449 21
TOTAL SURPLUS September 30, 1879	7,188 94
Paid to sinking funds in hands of trustees	\$2,000 00

INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.

Box-cars	11
Open cars	2
Horses	64
Harnesses (pairs of)	16
Sleighs	4
Other articles of equipment:—	
Tools, \$50; blankets, \$20; 2 carts, \$80; wagon, \$50; 2 safes, \$200; 2 ploughs, \$200.	

General Balance Sheet at Closing of Accounts September 30, 1879.

DR.		
Construction		\$21,000 00
Equipment		10,100 00
Land and buildings		11,000 00
Cash and cash assets		15,088 94
Cash	\$7,188 94	
Supplies	900 00	
Sinking fund	7,000 00	
		\$57,188 94
Cr.		
Capital stock		\$50,000 00
Surplus		7,188 94
		\$57,188 94

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.		
To Expenses		\$26,206 34
Dividends		3,000 00
Reduction of horse account		500 00
Reduction of equipment account		1,500 00
Balance September 30, 1879		7,188 94
		\$38,395 28
CR.		
By Balance September 30, 1878		\$4,449 21
Total income		33,946 07
		\$38,395 28
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured as single track, exclusive of sidings 5.8 miles.		
Aggregate length of switches, sidings, etc. 77 "		
Total length of track, measured as single track		6.57 miles.
Total length of track paved		1.94 "
Description of the several lines or routes operated by the company:—		
Extends from Methuen through Lawrence to North Andover, a distance of 5 miles; also to South Lawrence, a distance of .8 of a mile. 2.56 miles of O'Brien rail, 19 lbs. to the yard; 2 miles T rail, 30 lbs. to the yard; .8 of a mile of street rail, 40 lbs. to the yard; and .44 mile street rail, 48 lbs. to the yard.		
MILES RUN, ETC.		
Total number of miles run during the year		162,210
Average cost per mile run 16.16 cents		
Total number of passengers carried in the cars		505,008
Total number of round trips for the year		22,392
Average number of passengers per round trip 22.55		
Number of persons regularly employed by company		25
Rates of fare 3 cents.		

JAMES WALTON,
HEZEKIAH PLUMMER,
MOSES T. STEVENS,
A. W. STEARNS,
Directors.
JAMES H. EATON,
Treasurer.
A. N. KIMBALL,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

ESSEX, ss. November 5, 1879. Then personally appeared James Walton, Hezekiah Plummer, Moses T. Stevens, A. W. Stearns, James H. Eaton and A. N. Kimball, and severally made oath to the truth of the foregoing statement by them subscribed.

HERBERT W. FIELD,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.
MERRIMACK VALLEY HORSE RAILROAD COMPANY,
LAWRENCE, MASS.

NAME AND RESIDENCE OF OFFICERS.

William A. Russell, *President*, Lawrence, Mass. A. N. Kimball, *Superintendent*, Lawrence, Mass. James H. Eaton, *Treasurer and Clerk of Corporation*, Lawrence, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William A. Russell, Lawrence, Mass. A. W. Stearns, Lawrence, Mass. Hezekiah Plummer, Lawrence, Mass. James Walton, Methuen, Mass. Moses T. Stevens, North Andover, Mass.

REPORT

OF THE

METROPOLITAN RAILROAD COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.

CAPITAL STOCK.

Capital stock authorized by charter	\$1,950,000 00	
Capital stock authorized by votes of company	1,500,000 00	
Capital stock paid in (par value of shares, \$50)		\$1,500,000 00
Number of stockholders	861	

DEBT.

Funded debt, as follows:		\$1,027,442 12
Bonds due 1884, rate of interest 7 per cent	\$500,000 00	
Bonds due 1897, rate of interest 6 per cent	300,000 00	
Note due 1881, \$200,000; 1879, \$27,442.12	227,442 12	

Unfunded debt, as follows:		252,698 63
Notes payable	\$170,000 00	
Coupons due October 1, 1879	17,500 00	
Outstanding tickets	25,419 17	
Sundry accounts	39,779 46	

TOTAL GROSS DEBT		1,280,140 75
Amount of cash assets:		31,921 03
Cash	\$10,752 37	
Supplies	4,033 73	
Debit balances	17,134 93	

NET DEBT		1,248,219 72
--------------------	--	--------------

COST OF RAILWAY, EQUIPMENT AND PROPERTY.

RAILWAY.

Grading and paving		\$904,039 94
Track, including timber, rails, etc., and laying		
Interest during construction, commissions, discounts, etc.		
Engineering, agencies, salaries, and other expenses during construction		
Other railways (original cost unknown) purchased for		420,558 65

TOTAL COST OF CONSTRUCTION		\$1,324,598 59
--------------------------------------	--	----------------

EQUIPMENT, LAND AND BUILDINGS.

Horses (2,185)		\$272,464 94
Cars (438)		312,491 50
Other articles of equipment		101,795 12
TOTAL COST OF EQUIPMENT		686,751 56
TOTAL COST OF LAND AND BUILDINGS		895,779 22
Other property owned by company, including land and buildings not needed for operating road:—		
Land in city of Boston, estimated		200,000 00

TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.	\$3,107,129 37
Cash, cash assets and materials on hand	31,921 03
TOTAL PROPERTY AND ASSETS OF COMPANY	3,139,050 40
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Extension of tracks (number of feet, 19,554.61)	\$49,001 70
New horses (number, 5)	500 00
TOTAL ADDITION TO PROPERTY	49,501 70
Property sold or reduced in valuation on the books:—	
Sleighs and omnibuses sold and rents received, etc.	1,705 86
NET ADDITION TO PROPERTY FOR THE YEAR.	\$47,795 84
REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets.	\$1,180,245 36
Received from other railways as tolls or rent:	16,608 47
Highland Street Railway Company	\$10,306 31
Middlesex Railroad Company	6,020 95
Lynn and Boston Railroad Company	281 21
Received from sales of manure	10,959 68
TOTAL EARNINGS	1,207,813 51
Income from other sources:—	
City of Boston from Mount Hope coach, rents, etc.	6,341 30
TOTAL INCOME FROM ALL SOURCES	\$1,214,154 81
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$30,547 85
Repairs of cars and other vehicles, harness and horse-shoeing,	121,521 96
Repairs of buildings	12,732 80
Renewal of horses.	30,631 82
Wages and salaries of president, treasurer, superintendent and their clerks.	23,175 07
Wages and salaries of all other persons employed in operating the road	512,194 03
Provender	167,670 18
Taxes, state and local	22,658 91
Rent and tolls paid other companies for use of their roads:	1,547 54
Highland Street Railway Company	\$495 60
Middlesex Railroad Company	1,051 94
Insurance	4,213 70
Damages for injuries to persons and property	18,287 91
Office expenses, and all other expenses not included above	53,552 83
TOTAL EXPENSE OF OPERATING	\$998,734 60
Percentage of expenses to income	82.25
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$215,420 21
Interest accrued during the year	76,131 35
Dividends declared, 8 per cent for the year	120,000 00
Balance for the year, or surplus	19,288 86
Surplus at commencement of year	330,620 79
TOTAL SURPLUS September 30, 1879	358,909 65
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	295
Open cars	143
Horses	2,185
Harnesses (pairs of)	658
Omnibuses	3
Sleighs	41

Other articles of equipment:—

83 snow sleds, 32 snow ploughs, 18 heavy wagons, 18 light carriages, 7 light sleighs, 2,190 horse collars, engine, tools and machinery in repair shop, tools and machinery in machine and blacksmith shops, tools in paving department, tools, etc., in tin shop, tools, etc., in harness shop, horse powers, hay cutters, horse furniture in stables, blankets, halters, car mats, office furniture, telephone line.

General Balance Sheet at Closing of Accounts September 30, 1879.

DR.		
Construction		\$1,324,598 59
Equipment		686,751 56
Land and buildings		895,779 22
Other property		200,000 00
Cash and cash assets:		31,921 03
Cash	\$10,752 37	
Supplies	4,033 73	
Debit balances	17,134 93	
		\$3,139,050 40
CR.		
Capital stock		\$1,500,000 00
Funded debt		1,027,442 12
Unfunded debt		252,698 63
Surplus		358,909 65
		\$3,139,050 40
Copy of Profit & Loss Account for the Year ending September 30, 1879.		
DR.		
To Expenses		\$908,734 60
Interest		76,131 35
Dividends		120,000 00
Balance September 30, 1879		358,909 65
		\$1,553,775 60
CR.		
By Balance September 30, 1878		\$339,620 79
Total income		1,214,154 81
		\$1,553,775 60

DESCRIPTION OF RAILWAY.

Length of railway owned by company, measured as single track, exclusive of sidings	54.253 miles.	
Aggregate length of switches, sidings, etc	5.954 "	
Total length of track, measured as single track		60.207 miles.
Total length of track paved		50 "
Weight of rail per yard and description of rail: Street and T rail, Description of the several lines or routes operated by the company:—		30 to 55½ lbs.
West Roxbury, Brookline, Dorchester, Forest Hills, Egleston Square, Meeting-House Hill, Upham's Corner, Warren Street, Warren Street via Harrison Avenue, Norfolk House, Norfolk House and Depots, West End, Chelsea Ferry, East Boston Ferry, Chelsea and East Boston Ferry, East Boston, Lexington Street, Tremont Street, Tremont Street and East Boston Ferry, Tremont Street and Depots, Tremont House, Berkeley Street and Depots, Berkeley Street, Beacon Street, Atlantic Avenue and Bartlett Street, Atlantic Avenue and Tremont Street, Atlantic Avenue Transfer, Milton Mills and Park Street, Field's Corner, Centre Street Transfer, night car on Washington Street, night car on Tremont Street.		

Length of railway belonging to other companies, measured as single track, not including sidings, etc., operated by this company, *or over which this company runs its cars*, with description of same:—

Highland Street Railway	1.38 miles.
South Boston Railroad	.942 “
Middlesex Railroad	.6166 “

TOTAL 2.9386 miles.

Total length of railway, measured as single track, not including sidings, etc., operated by this company 57.1916 miles.

MILES RUN, ETC.

Total number of miles run during the year	4,751,093
Average cost per mile run	21.02 cents.
Total number of passengers carried in the cars	23,605,843
Total number of round trips for the year	729,301
Average number of passengers per round trip	32.36
Number of persons regularly employed by company	1,068
Rates of fare: 3, 5, 6, 8½ and 10 cents.	

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL.		FROM THEIR OWN MISCONDUCT OR CARELESSNESS.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	—	1	—	1	—
Employés	—	—	1	—	1	—
Others	—	—	2	2	2	2

STATEMENT OF EACH ACCIDENT.

November 18, 1878. — Man, crossing street in front of car with umbrella held so as to prevent him from seeing, was knocked down and had three ribs broken.

January 13, 1879. — A car-driver fell over the dasher of his car, and was so badly injured by the wheels of the car as to cause his death.

February 2, 1879. — Man fell from a car and was killed. No apparent cause for the fall.

July 1, 1879. — Boy fell on track; one of his legs was run over by wheel of a car, making amputation necessary.

July 5, 1879. — Boy, in attempting to get on front platform of a car in motion, fell, receiving injuries from the wheels, which injuries are supposed to have caused his death.

September 29, 1879. — Police officer attempted to get on an open car while it was in motion, missed his hold and fell, receiving injuries which resulted in his death.

C. A. RICHARDS,
WILLIAM HENDRY,
G. H. VINCENT,
JOHN M. CLARK,
WILLIAM A. RUST,
S. R. NILES,
Directors.
CHARLES BOARDMAN,
Treasurer.
M. S. STARKWEATHER,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. BOSTON, November 4, 1879. Then personally appeared C. A. Richards, William Hendry, G. H. Vincent, John M. Clark, William A. Rust, S. R. Niles, Charles Boardman and M. S. Starkweather, and severally made oath to the truth of the foregoing statement by them subscribed.

H. R. HARDING,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.
METROPOLITAN RAILROAD COMPANY,
16 KILBY STREET, BOSTON, MASS.

NAMES AND RESIDENCE OF OFFICERS.

C. A. Richards, *President*, Boston, Mass. M. S. Starkweather, *Superintendent*, Boston, Mass. C. Boardman, *Treasurer*, Boston, Mass. H. B. Harding, *Clerk of Corporation*, Cambridge, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

C. A. Richards, G. H. Vincent, Harvey Jewell, D. N. Richards, N. Cushing, W. A. Rust, S. R. Niles, W. Hendry and J. M. Clark, all of Boston, Mass.

REPORT
OF THE
MIDDLESEX STREET RAILWAY COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$550,000 00	
Capital stock authorized by votes of company	550,000 00	
Capital stock paid in (par value of shares \$100)		\$400,000 00
Number of stockholders	268	
DEBT.		
Funded debt, as follows:		\$510,000 00
Bonds due 1880, rate of interest 6 per cent	\$60,000 00	
Bonds due 1884, rate of interest 6 per cent	100,000 00	
Bonds due 1885, rate of interest 8 per cent	150,000 00	
Bonds due 1897, rate of interest 6 per cent	200,000 00	
Unfunded debt, as follows:		91,256 58
Notes payable and sundry accounts	\$91,256 58	
TOTAL GROSS DEBT		\$601,256 58
Amount of cash assets:		304,599 76
Cash	\$56,994 78	
Supplies	8,242 31	
Sinking fund	129,466 04	
Debit balances	109,896 63	
NET DEBT		\$296,656 82
COST OF RAILWAY EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$433,867 23
EQUIPMENT, LAND AND BUILDINGS.		
Horses (387)		\$48,250 00
Cars (58 box and 28 open cars)		80,330 67
Other articles of equipment		23,289 94
TOTAL COST OF EQUIPMENT		151,870 61
Land owned by company needed in operating road		103,165 68
Buildings owned by company needed in operating road		46,553 25
TOTAL COST OF LAND AND BUILDINGS		149,718 93
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.		735,456 77
Cash, cash assets and materials on hand		304,599 76
TOTAL PROPERTY AND ASSETS OF COMPANY		1,040,056 53
Amount of sinking funds in hands of trustees	\$129,466 04	

PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.	
Extension of tracks	\$401 90
New cars (number, 10)	6,610 50
Land and buildings	9,823 33
TOTAL ADDITION TO PROPERTY	16,835 73
Property sold or reduced in valuation on the books:—	
2 sleighs	60 00
NET ADDITION TO PROPERTY FOR THE YEAR	\$16,775 73
REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$254,902 33
Received from other railways as tolls or rent:	6,316 60
Lynn and Boston Railroad Company	\$5,180 91
Metropolitan Railroad Company	1,051 94
Highland Railroad Company	83 75
Received from sales of manure	2,144 34
TOTAL INCOME FROM ALL SOURCES	\$263,363 27
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$10,085 33
Repairs of cars and other vehicles, harness and horse-shoeing	20,676 98
Repairs of buildings	1,071 19
Renewal of horses	5,917 50
Wages and salaries of president, treasurer, superintendent and their clerks	11,500 00
Wages and salaries of all other persons employed in operating the road	79,989 31
Provender	34,433 17
Taxes, state and local	5,129 85
Rent and tolls paid other companies for use of their roads:	7,102 78
Metropolitan Railroad Company	\$6,020 95
Somerville Railroad Company	1,081 83
Insurance	1,059 28
Damages for injuries to persons and property	1,715 17
Office expenses and all other expenses not included above	13,997 39
TOTAL EXPENSE OF OPERATING	\$192,477 95
Percentage of expenses to income	73.16
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$70,685 32
Interest accrued during the year	31,586 67
Dividends declared, 6 per cent for the year	24,000 00
Balance for the year, or surplus	15,098 65
Surplus at commencement of year	23,701 30
TOTAL SURPLUS September 30, 1879	38,799 95
Paid to sinking funds in hands of trustees	\$4,500 00
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	58
Open cars	28
Horses	337
Harnesses	114
Omnibuses	} 29
Sleighs	

General Balance Sheet at Closing of Accounts September 30, 1879.

DR.		
Construction		\$433,867 23
Equipment		151,870 61
Land and buildings		149,718 93
Cash and cash assets:		304,599 76
Cash	\$56,994 78	
Supplies	8,242 31	
Sinking fund	129,466 04	
Sundry accounts	109,896 63	
		\$1,040,056 53
CR.		
Capital stock		\$400,000 00
Funded debt		510,000 00
Unfunded debt		91,256 58
Surplus		38,799 95
		\$1,040,056 53

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.		
To Expenses		\$192,677 95
Interest		31,586 67
Dividends		24,000 00
Balance September 30, 1879		38,799 95
		\$287,064 57
CR.		
By Balance September 30, 1878		\$23,701 30
Total income		263,363 27
		\$287,064 57

DESCRIPTION OF RAILWAY.

Length of railway owned by company, measured as single track, exclusive of sidings	9.981 miles.	
Aggregate length of switches, sidings, etc.	1.150 "	
Total length of track, measured as single track		11.131 miles.
Total length of track paved		All paved.
Weight of rail per yard and description of rail: Rolled iron, 46 to 52 lbs.; steel rail, 42 lbs.; 2,000 feet of Concord rail, 20 lbs.		
Description of the several lines or routes operated by the company:—		
From Somerville line on Main Street, thence on Main Street, City Square, Warren Bridge, Beverly Street, Haymarket Square, Washington, Summer, Lincoln, Beach, Federal, Kneeland, South, Beach, Washington, Boylston and Tremont Streets, Scollay Square, Cornhill, Washington Street, Haymarket Square, Haverhill, Causeway and Beverly Streets, Warren Bridge, City Square, Park and Main Streets, to starting point.		
From station on Bunker Hill, Bunker Hill, Vine and Chelsea Streets, to City Square; thence by above route to Temple Place, Tremont Street and Scollay Square; thence by Cornhill, Washington Street, Haymarket Square, Charlestown Street, Charles River Bridge, City Square, Park, Chelsea and Vine Streets, to Bunker Hill Station.		
Also, from Haymarket Square, Sudbury and Court Streets, Scollay Square, Cornhill and Washington Streets, Haymarket Square, Charlestown Street, Charles River Bridge, to Main Street, as above.		

Also, from Main Street, at Sullivan Square, Cambridge and Washington Streets (Somerville), to Union Square.	
Also, from Main Street, through Everett, to Malden.	
Also, from Somerville line to Winter Hill. Double track on both bridges.	
Length of railway belonging to other companies, measured as single track, not including sidings, etc., operated by this company, or over which this company runs its cars, with description of the same:	7.716 miles.
Malden and Melrose Railroad	3.832 miles.
Medford and Charlestown Railroad	.978 "
Somerville Horse Railroad	.804 "
Metropolitan Railroad	2.102 "
Total length of railway, measured as single track, not including sidings, etc., operated by this company	17.697 miles.
MILES RUN, ETC.	
Total number of miles run during the year	814,870
Average cost per mile run	23.64 cents.
Total number of passengers carried in the cars	4,834,878
Total number of round trips for the year	126,219
Average number of passengers per round trip	38.31
Number of persons regularly employed by company	175
Rates of fare: Charlestown, 6 cents; tickets, 5 cents. Malden, 15 cents; tickets, 8½ cents. Everett, 10 cents; tickets, 7½ cents. Winter Hill, 10 cents; tickets, 6¼ cents. Union Square, 8 cents; tickets, 5½ cents.	

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL.		FROM THEIR OWN MISCONDUCT OR CARELESSNESS.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	-	-	-	1	-	1
Employés	-	-	-	-	-	-
Others	-	-	-	1	-	1

STATEMENT OF EACH ACCIDENT.

March 8, 1879. — A man, leaving a car in motion, without notifying the conductor, fell and fractured his leg, requiring amputation.

June 25, 1879. — A car-horse fell into a hole, and slightly injured a man at work in same.

CHARLES E. POWERS,
JOHN GOLDTHWAIT,
NAHUM CHAPIN,
NELSON BARTLETT,
GEORGE O. CARPENTER,
FRANCIS THOMPSON,
S. P. LANGMAID,
Directors.
GEO. W. PALMER,
Treasurer.
JOHN H. STUDLEY,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 5, 1879. Then personally appeared Charles E. Powers, John Goldthwait, Nahum Chapin, Nelson Bartlett, George O. Carpenter, Francis Thompson, S. P. Langmaid, George W. Palmer and John S. Studley, and severally made oath that the foregoing statement by them subscribed is true, according to their best knowledge and belief.

L. M. CHILD,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

MIDDLESEX RAILROAD COMPANY,
28 TREMONT ROW, BOSTON, MASS.

NAME AND RESIDENCE OF OFFICERS.

Charles E. Powers, *President*, Boston, Mass. John H. Studley, *Superintendent*, Boston, Mass. George W. Palmer, *Treasurer and Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Charles E. Powers, John Goldthwait, Nahum Chapin, Nelson Bartlett, Francis Thompson, Caleb Rand, William H. Kent and George O. Carpenter, all of Boston, Mass. Samuel P. Langmaid, of East Somerville, Mass.

REPORT

OF THE

NAUMKEAG STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$70,000 00	
Capital stock authorized by votes of company	70,000 00	
Capital stock paid in (par value of shares, \$100)		\$70,000 00
Number of stockholders	20	
DEBT.		
Funded debt, as follows:		\$85,900 00
Mortgage bonds due 1885, rate interest 6 per cent	35,900 00	
Mortgage bonds due 1895, rate interest 6 per cent	50,000 00	
Unfunded debt, as follows:		32,355 57
Coupons unpaid	129 00	
Tickets unredeemed	1,243 49	
Notes payable	4,400 00	
Debit balances	4,341 90	
Salem Street Railway	22,241 18	
TOTAL GROSS DEBT		118,255 57
Amount of cash assets:		23,132 17
Cash	\$2,858 38	
Supplies	7,646 79	
Sinking fund	3,200 00	
Debit balances	9,427 00	
NET DEBT		\$95,123 40
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$6,332 20
EQUIPMENT, LAND AND BUILDINGS.		
Horses		8,385 00
Cars		25,176 00
Other articles of equipment		9,020 68
TOTAL COST OF EQUIPMENT		42,581 68
Land owned by company needed in operating road		1,200 00
Buildings owned by company needed in operating road		1,100 00
TOTAL COST OF LAND AND BUILDINGS		2,300 00

Other property owned by company, including land and buildings not needed for operating road:—	
Lease of Salem Street Railway	\$139,175 38
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.	190,389 26
Cash, cash assets and materials on hand	23,132 17
TOTAL PROPERTY AND ASSETS OF COMPANY	213,521 43
Amount of sinking funds in hands of trustees (\$3,200).	
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Extension of tracks (number of feet, 2,362)	\$1,072 45
New horses (number, 6)	660 00
New cars (number, 4)	1,176 00
Other equipment	621 24
TOTAL ADDITION TO PROPERTY	3,529 79
REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$51,420 83
Received from sales of manure	1,111 05
TOTAL EARNINGS	52,531 88
Income from other sources:—	
Use of barges	1,279 60
TOTAL INCOME FROM ALL SOURCES	53,811 48
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$3,383 33
Repairs of cars and other vehicles, harness and horse-shoeing	4,950 37
Repairs of buildings	270 73
Renewal of horses	659 00
Wages and salaries of president, treasurer, superintendent and their clerks	2,258 40
Wages and salaries of all other persons employed in operating the road	11,438 79
Provender	6,946 65
Taxes, state and local	425 56
Rent and tolls paid other companies for use of their roads:—	
Salem Street Railway	100 00
Insurance	551 06
Damages for injuries to persons and property	371 20
Office expenses, and all other expenses not included above	4,992 15
TOTAL EXPENSE OF OPERATING	36,347 24
Percentage of expenses to income	67.54
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$17,464 24
Interest accrued during the year	5,352 81
Balance for the year, or surplus	12,111 43
Surplus at commencement of year	13,154 43
TOTAL SURPLUS September 30, 1879	25,265 86
Paid to sinking funds in hands of trustees	\$1,100 00
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	33
Open cars	9
Horses	72
Harnesses (pairs of)	39
Omnibuses	6
Sleighs	16
Other articles of equipment:—	
1 carryall, 2 buggies, 1 Concord wagon, 1 express wagon, 3 carts, 1 sleigh, 1 pump, 1 buggy, 3 wheelbarrows (tools, clocks and miscellaneous articles).	

General Balance Sheet at Closing of Accounts September 30, 1879.

DR.		
Construction		\$6,332 20
Equipment		42,581 68
Land and buildings		2,300 00
Other property		139,175 38
Cash and cash assets		23,132 17
Cash	\$2,858 38	
Supplies	7,646 79	
Sinking fund	3,200 00	
Debit balances	9,427 00	

\$213,521 43

CR.		
Capital stock		\$70,000 00
Funded debt		85,900 00
Unfunded debt		32,355 57
Surplus		25,265 86

\$213,521 43

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.		
To Expenses		\$36,347 24
Interest		5,352 81
Balance September 30, 1879		25,265 86

\$66,965 91

CR.		
By Balance September 30, 1878		\$13,154 43
Total income		53,811 48

\$66,965 91

DESCRIPTION OF RAILWAY.

Length of railway owned by company, measured as single track, exclusive of sidings	1.276 miles.	
Aggregate length of switches, sidings, etc.	.35 "	
Total length of track, measured as single track		1.627 miles.
Total length of track paved		1.627 "
Weight of rail per yard, and description of rail: 1 × $\frac{3}{4}$ inch strap rail, 15 lbs. to yard, 713 feet, and the rest T or H rail 31 and 33 lbs. per yard.		

Description of the several lines or routes operated by the company:—

Main track from the Square in Peabody, through Salem to Elliott Street in Beverly, with double track from Peabody line to the great Elm in Boston Street in Salem, and from Fowler Street to North Street in Salem, with two turnouts in Peabody, nine turnouts in Salem, and five turnouts in Beverly, with branches two miles long from North to South Salem with turn-tables at each end of main line and branches; also 1.597 miles from Pleasant Street, Salem, to the Willows on Salem Neck, with six turnouts, built and owned by the Naumkeag Street Railway Company from the junction of Essex and English Streets, Salem, to said Willows.

Length of railway belonging to other companies, measured as single track, not including sidings, etc., operated by this company, or over which this company runs its cars, with description of same

7.785 miles

Salem Street Railway: track relaid, 2,190 feet, on Boston Street, Salem; 4,560 feet on Lafayette Street, South Salem; and 638 feet on North Street, North Salem, with T rail 27 lbs. and 33 lbs. to a yard. See Salem Street Railway report.	
Total length of railway, measured as single track, not including sidings, etc., operated by this company	9.061 miles.
MILES RUN, ETC.	
Total number of miles run during the year	238,819
Average cost per mile run 15.15 cents.	
Total number of passengers carried in the cars	821,856
Total number of round trips for the year	33,450
Average number of passengers per round trip 24.56	
Number of persons regularly employed by company	36
Rates of fare: 10, 7, 6½ and 6 cents on the main road; 10, 8½, 5, 4½, 4 and 3½ cents on the branches.	

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL.		FROM THEIR OWN MISCONDUCT OR CARELESSNESS.		TOTAL	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	-	-	-	-	-	-
Employés	-	-	-	-	-	-
Others	-	3	-	-	-	3

STATEMENT OF EACH ACCIDENT.

November 3, 1878. — 7 P.M. Car No. 21 collided with carriage at the corner of Essex and Pleasant Streets; no damage.

April 18, 1879. — 8.25 P.M. James Nutter of Beverly was found lying on the track between Rice Street and Thorndike Street, on Bridge Street, drunk, by the driver of No. 14 car; injury slight.

August 15, 1879. — 5.58 P.M. Driver of No. 21 car collided with a team with three ladies, breaking the two forward wheels.

ABNER C. GOODELL, JR.,
WILLIAM MACK,
HENRY WHEATLAND,
BENJ. W. RUSSELL,
CHAS. T. JENKINS,
Directors.
HENRY WHEATLAND,
Treasurer.
WILLARD B. FERGUSON,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

ESSEX, ss. SALEM, October 31, 1879. Then personally appeared Abner C. Goodell, Jr., William Mack, Henry Wheatland, Benjamin W. Russell, Charles

T. Jenkins and Willard B. Ferguson, and severally made oath to the truth of the foregoing statement by them subscribed.

GEO. D. PHIPPEN,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

NAUMKEAG STREET RAILWAY COMPANY,

No. 233 ESSEX STREET, SALEM, MASS.

NAME AND RESIDENCE OF OFFICERS.

Abner C. Goodell, Jr., *President*, Salem, Mass. Willard B. Ferguson, *Superintendent*, Salem, Mass. Henry Wheatland, *Treasurer*, Salem, Mass. Joseph F. Hickey, *Clerk of Corporation*, Salem, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Abner C. Goodell, Jr., Salem, Mass. Henry Wheatland, Salem, Mass. William Mack, Salem, Mass. Charles T. Jenkins, Salem, Mass. Benjamin W. Russell, Salem, Mass. James P. Robinson, East Lyme, Conn. R. P. Waters.

REPORT

OF THE

NEW BEDFORD & FAIRHAVEN STREET RAIL- WAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.

CAPITAL STOCK.

Capital stock authorized by charter	\$60,000 00	
Capital stock authorized by votes of company	54,100 00	
Capital stock paid in (par value of shares, \$100), ...		\$54,100 00
Number of stockholders	73	

DEBT.

Funded debt, as follows:		\$16,000 00
Bonds due August 1, 1882, rate of interest 6 per cent, \$16,000 00		
Unfunded debt		2,939 56

TOTAL GROSS DEBT		\$18,939 56
----------------------------	--	-------------

Amount of cash assets:		6,186 15
Cash	\$3,616 27	
Supplies	501 52	
Debit balances	2,068 36	

NET DEBT		\$12,753 41
--------------------	--	-------------

COST OF RAILWAY, EQUIPMENT AND PROPERTY.

RAILWAY.

Grading and paying	}	\$53,257 98	
Track, including timber, rails, etc., and laying			
Interest during construction, commissions, dis- counts, etc.		377 56	
Engineering, agencies, salaries and other expenses during construction		2,286 40	
TOTAL COST OF CONSTRUCTION			\$55,921 94

EQUIPMENT, LAND AND BUILDINGS.

Horses	\$4,200 00
Cars	8,689 41
Other articles of equipment	875 00
TOTAL COST OF EQUIPMENT	13,764 41
Land owned by company needed in operating road	2,870 00
Buildings owned by company needed in operating road	9,866 33
TOTAL COST OF LAND AND BUILDINGS	12,736 33

TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC. .	\$82,422 68
Cash, cash assets and materials on hand	6,186 15
TOTAL PROPERTY AND ASSETS OF COMPANY	88,608 83

PROPERTY ACCOUNTS: CREDITS DURING THE YEAR.	
Equipment, reduced valuation	\$911 06

REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$33,726 73
Received from mails and express	343 38
Received from sales of manure	423 27
TOTAL EARNINGS	34,493 38
Income from other sources:—	
Advertising	192 50
TOTAL INCOME FROM ALL SOURCES	34,685 88

EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$1,439 31
Repairs of cars and other vehicles, harness and horse-shoeing	3,490 70
Repairs of buildings	81 52
Renewal of horses	1,313 00
Wages and salaries of president, treasurer, superintendent and their clerks	1,832 58
Wages and salaries of all other persons employed in operating the road	11,820 66
Provender	4,738 92
Taxes, state and local	103 21
Insurance	192 00
Damages for injuries to persons and property	285 36
Office expenses, and all other expenses not included above	1,260 07

TOTAL EXPENSE OF OPERATING	\$26,557 33
Percentage of expenses to income 76.56	

NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$8,128 55
Interest accrued during the year and balance unpaid previous years	2,150 46
Balance for the year, or surplus	5,978 09
Surplus at commencement of year \$10,552 24	
Deduct entries made in Profit & Loss account during the year, not included in the foregoing statement:—	\$961 06
Bad debt \$50 00	
Charged off, depreciation of equipment 911 06	

Surplus at commencement of year as changed by aforesaid entries, ...	9,591 18
TOTAL SURPLUS September 30, 1879	15,569 27

INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	10
Open cars	3
Horses	44
Harnesses (pairs of)	15
Sleighs	5
Other articles of equipment:—	
Baggage car	1
Wagons	2

General Balance Sheet at Closing of Accounts September 30, 1879.

DR.	
Construction	\$55,921 94
Equipment	13,764 41
Land and buildings	12,736 33

Cash and cash assets:		\$6,186 15
Cash	\$3,616 27	
Supplies	501 52	
Debit balances	2,068 36	
	CR.	\$88,608 83
Capital stock		\$54,100 00
Funded debt		16,000 00
Unfunded debt		2,939 56
Surplus		15,569 27
Copy of Profit & Loss Account for the Year ending September 30, 1879.		\$88,608 83
	DR.	
To Expenses		\$26,557 33
Interest		2,150 46
Charged for depreciation		961 06
Balance September 30, 1879		15,569 27
	CR.	\$45,238 12
By Balance September 30, 1878		\$10,552 24
Total income		34,685 88
		\$45,238 12
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured as single track, exclusive of sidings	4.106 miles.	
Aggregate length of switches, sidings, etc.	.424 "	
Total length of track, measured as single track		4.530 miles.
Total length of track paved		2.638 "
Weight of rail per yard, and description of rail: 45 lbs., balance 35 lbs. per yard.	1.445 miles,	
Description of the several lines or routes operated by the company:—		
From Linden Street, through Purchase and Fourth, to Rivet Street.		
From Purchase Street, through William, Second and Middle Streets, across bridge to Old Colony Depot in Fairhaven.		
From Fourth, through School Street, to Steamboat Wharf.		
MILES RUN, ETC.		
Total number of miles run during the year		152,934
Average cost per mile run	17.36 cents.	
Total number of passengers carried in the cars		619,218
Total number of round trips for the year		41,658
Average number of passengers per round trip	14.86	
Number of persons regularly employed by company		19
Rates of fare: single fare, 6 cents; 5 tickets for 25 cents.		

WARREN LADD,
ANDREW G. PIERCE,
CHAS. H. GIFFORD,
GEO. WILSON,
JAMES V. COX,
WESTON HOWLAND,
Directors.
ANDREW G. PIERCE,
Treasurer.
WARREN LADD,
President.

COMMONWEALTH OF MASSACHUSETTS.

BRISTOL, ss. NEW BEDFORD, November 3, 1879. Then personally appeared Warren Ladd, Andrew G. Pierce, George Wilson and James V. Cox, who severally made oath, and Charles H. Gifford and Weston Howland, who solemnly affirmed, to the truth of the foregoing statement by them subscribed.

LEMUEL T. TERRY,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

NEW BEDFORD & FAIRHAVEN STREET RAILWAY COMPANY,
NEW BEDFORD, MASS.

NAME AND RESIDENCE OF OFFICERS.

Warren Ladd, *President*, New Bedford, Mass. Andrew G. Pierce, *Treasurer*, New Bedford, Mass. Samuel P. Burt, *Clerk of Corporation*, New Bedford, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Andrew G. Pierce, William W. Crapo, George Wilson, Samuel P. Burt, Warren Ladd and Charles H. Gifford of New Bedford, Mass., and Weston Howland and James V. Cox of Fairhaven, Mass.

REPORT

OF THE

NEWBURYPORT & AMESBURY STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by E. T. Northend.]

CAPITAL STOCK AND DEBTS.			
CAPITAL STOCK.			
Capital stock authorized by charter	\$120,000	00	
Capital stock authorized by votes of company	60,000	00	
Capital stock paid in (par value of shares, \$100)			\$38,250 00
Number of stockholders	32		
DEBT.			
Funded debt, as follows:—			
Notes due 1884, rate interest 7 per cent			\$24,000 00
CASH ASSETS.			
Cash			239 75
NET DEBT			\$23,760 25
COST OF RAILWAY, EQUIPMENT AND PROPERTY.			
RAILWAY.			
TOTAL COST OF CONSTRUCTION	\$60,761	43	
EQUIPMENT, LAND AND BUILDINGS.			
Land not needed for operating road	\$1,100	00	
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.	61,861	43	
Cash on hand		239 75	
TOTAL PROPERTY AND ASSETS OF COMPANY	\$62,101	18	
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.			
Extension of tracks, old bill of construction			\$72 59
REVENUE FOR THE YEAR.			
	Lessee's Account.		Company's Acc't.
Received from passengers on railways operated by this company, including tickets	\$14,169	11	
Received from other railways as tolls or rent:—			
E. T. Northend			\$2,700 00
Received from sales of manure	200	00	
TOTAL EARNINGS	\$14,369	11	

EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.		Lessee's Account.	Company's Acc't.
Repairs of road-bed and track		\$525 00	
Repairs of cars and other vehicles, harness and horse-shoeing		650 00	
Renewal of horses		500 00	
Wages and salaries of president, treasurer, super- intendent and their clerks			\$50 00
Wages and salaries of all other persons employed in operating the road		2,575 00	
Provender		2,950 00	
Office expenses, and all other expenses not in- cluded above		3,075 00	36 10
TOTAL EXPENSE OF OPERATING		\$10,275 00	\$86 10
NET INCOME, DIVIDENDS, ETC.			
NET INCOME ABOVE OPERATING EXPENSES		\$4,094 11	\$2,613 90
Interest accrued during the year			2,310 00
Balance for the year, or surplus			303 90
Deficit at commencement of year			452 72
TOTAL DEFICIT September 30, 1879			148 82
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.			
Box-cars			5
Open cars			3
Horses			25
Harnesses (pairs of)			8
Sleighs			3
Other articles of equipment: snow plough.			
General Balance Sheet at Closing of Accounts September 30, 1879.			
DR.			
Construction			\$60,761 43
Land and buildings			1,100 00
Cash			239 75
Profit & Loss balance			148 82
			\$62,250 00
CR.			
Capital stock			\$38,250 00
Funded debt			24,000 00
			\$62,250 00
Copy of Profit & Loss Account for the Year ending Septem- ber 30, 1879.			
DR.			
To Balance September 30, 1878			\$452 72
Expenses			86 10
Interest			2,310 00
			\$2,848 82
CR.			
By Total income			\$2,700 00
Balance September 30, 1879			148 82
			\$2,848 82

DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured		
as single track, exclusive of sidings . . .	6.333 miles.	
Aggregate length of switches, sidings, etc. . .	.038 "	
Total length of track, measured as single track . . .		6.371 miles.
Weight of rail per yard, and description of rail, 30 lbs. T rail.		
Description of the several lines or routes operated by E. T. Northend, lessee:—		
Road extends from Marlborough Street in Newburyport to Market Square, Amesbury Mills		6.333 miles.
MILES RUN, ETC.		
Total number of miles run during the year		55,186
Average cost per mile run	18.62 cts.	
Total number of passengers carried in the cars		189,320
Total number of round trips for the year		4,800
Average number of passengers per round trip	39	
Number of persons regularly employed by lessee		7
Rates of fare: 6, 10 and 15 cents.		

JOHN J. CURRIER,
 JOS. B. MORSS,
 NATHANIEL PIERCE,
 MOSES H. FOWLER,
 SAMSON LEVY,
Directors.
 JOS. B. MORSS,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

ESSEX, ss. NEWBURYPORT, October 31, 1879. Then personally appeared John J. Currier, Joseph B. Morss, Nathaniel Pierce, Moses H. Fowler and Samson Levy, a majority of the Board of Directors, and Joseph B. Morss, Treasurer, and severally made oath to the truth of the foregoing statement by them subscribed.

GEORGE H. STEVENS,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

NEWBURYPORT & AMESBURY HORSE RAILROAD COMPANY,
 NEWBURYPORT, MASS.

NAME AND RESIDENCE OF OFFICERS.

John J. Currier, *President*, Newburyport, Mass. Joseph B. Morss, *Treasurer*, Newburyport, Mass. George H. Stevens, *Clerk of Corporation*, Newburyport, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

John J. Currier, Newburyport, Mass. Nathaniel Pierce, Newburyport, Mass. Moses H. Fowler, Newburyport, Mass. Samson Levy, Newburyport, Mass. George H. Stevens, Newburyport, Mass. Joseph B. Morss, Newburyport, Mass. Henry Kingsbury, Salisbury, Mass. George Currier, Amesbury, Mass.

REPORT
OF THE
NORTHAMPTON STREET RAILWAY COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$300,000 00	
Capital stock authorized by votes of company	50,000 00	
Capital stock paid in (par value of shares, \$100)		\$50,000 00
Number of stockholders	18	
DEBT.		
Unfunded debt: (accounts payable)		\$3,004 79
CASH ASSETS.		
Cash		3 30
NET DEBT		\$3,001 49
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION.		\$46,150 00
EQUIPMENT, LAND AND BUILDINGS.		
Horses		\$700 00
Cars		300 00
Other articles of equipment		100 00
TOTAL COST OF EQUIPMENT		1,100 00
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC. .		47,250 00
Cash, cash assets and materials on hand		3 30
TOTAL PROPERTY AND ASSETS OF THE COMPANY		47,253 30
REVENUE FOR THE YEAR.		
Received from passengers on railways operated by this company, including tickets		\$5,068 68
Received from mails and express		165 25
Received from sales of manure		100 00
TOTAL EARNINGS		\$5,333 93

EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$554 23
Repairs of cars and other vehicles, harness and horse-shoeing	573 10
Renewal of horses	319 00
Wages and salaries of president, treasurer, superintendent and their clerks	600 00
Wages and salaries of all other persons employed in operating the road	1,422 00
Provender	1,028 26
Taxes, state and local	30 63
Office expenses, and all other expenses not included above	1,397 16
TOTAL EXPENSE OF OPERATING	\$5,924 38
Percentage of expenses to income 111.80	
NET INCOME, DIVIDENDS, ETC.	
Balance for the year, or deficit	\$590 45
Deficit at commencement of year	5,161 04
TOTAL DEFICIT September 30, 1879	\$5,751 49
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-car	1
Horses	14
Harnesses (pairs of)	3
Sleigh	1
General Balance Sheet at Closing of Accounts September 30, 1879.	
DR.	
Construction	\$46,150 00
Equipment	1,100 00
Cash	3 30
Deficit	5,751 49
	\$53,004 79
CR.	
Capital stock	\$50,000 00
Unfunded debt	3,004 79
	\$53,004 79
Copy of Profit & Loss Account for the Year ending September 30, 1879.	
DR.	
To Balance September 30, 1878	\$5,161 04
Expenses	5,924 38
	\$11,085 42
CR.	
By Total income	\$5,333 93
Balance September 30, 1879	5,751 49
	\$11,085 42
DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings 3.200 miles.	
Aggregate length of switches, sidings, etc. 030 "	
Total length of track, measured as single track	3.230 miles.
Weight of rail per yard and description of rail: 33 lb. tram rail.	
Description of the several lines or routes operated by the company:—	
Northampton to Florence	3.200 "

MILES RUN, ETC.	
Total number of miles run during the year	24,648
Average cost per mile run 24.08 cents.	
Total number of passengers carried in the cars	59,246
Total number of round trips for the year	3,851
Average number of passengers per round trip 15	
Number of persons regularly employed by the company	4
Rates of fare: 6 and 12 cents.	

OSCAR EDWARDS,
M. H. SPAULDING,
E. C. CLARK,
J. C. HAMMOND,
Directors.
E. C. CLARK,
Treasurer.
E. C. CLARK,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

HAMPSHIRE, SS. NORTHAMPTON, October 8, 1879. Then personally appeared Oscar Edwards, M. H. Spaulding, E. C. Clark and J. C. Hammond, and severally made oath to the truth of the foregoing statement by them subscribed.

JOHN WHITTELSEY,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

NORTHAMPTON STREET RAILWAY,
NORTHAMPTON, MASS.

NAME AND RESIDENCE OF OFFICERS.

Oscar Edwards, *President*, Northampton, Mass. E. C. Clark, *Superintendent*, Northampton, Mass. E. C. Clark, *Treasurer*, Northampton, Mass. M. H. Spaulding, *Clerk of Corporation*, Northampton, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Oscar Edwards, M. H. Spaulding, J. C. Hammond, J. L. Warriner and E. C. Clark, all of Northampton, Mass.

REPORT

OF THE

NORTH WOBURN STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$50,000 00	
Capital stock authorized by votes of company	25,000 00	
Capital stock paid in (par value of shares, \$100)		\$25,000 00
Number of stockholders	32	
DEBT.		
Dexter Carter, notes and mortgages	\$4,000 00	
TOTAL GROSS DEBT		\$4,000 00
Amount of cash assets:		220 82
Cash	185 82	
Supplies: hay, grain and hogs	35 00	
NET DEBT		\$3,779 18
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
TOTAL COST OF CONSTRUCTION.		\$25,550 00
EQUIPMENT, LAND AND BUILDINGS.		
Horses		\$700 00
Cars		1,000 00
Other articles of equipment		250 00
TOTAL COST OF EQUIPMENT		1,950 00
Land owned by company needed in operating road		200 00
Buildings owned by company needed in operating road		1,300 00
TOTAL COST OF LAND AND BUILDINGS		1,500 00
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.		29,000 00
Cash, cash assets and materials on hand		220 82
TOTAL PROPERTY AND ASSETS OF COMPANY		29,220 82
PROPERTY ACCOUNTS: CREDITS DURING THE YEAR.		
Depreciation in road and equipment as per re-valuation made September 30, 1879		\$3,717 37
REVENUE FOR THE YEAR.		
Received from passengers on railways operated by this company, including tickets.		\$3,234 90
Received from mails and express:		93 75
Received from sales of manure		72 50
TOTAL EARNINGS.		3,401 15
Income from other sources:—		
Profit on sale of hogs		15 00
TOTAL INCOME FROM ALL SOURCES		\$3,416 15

EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$617 06
Repairs of cars and other vehicles, harness and horse-shoeing	335 93
Repairs of buildings	32 85
Renewal of horses	60 00
Wages and salaries of all other persons employed in operating the road	1,245 36
Provender	792 46
Taxes, state and local	45 90
Insurance	15 00
Office expenses, and all other expenses not included above	143 87
TOTAL EXPENSE OF OPERATING	3,288 43
Percentage of expenses to income	96.20

NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$127 72
Interest accrued during the year	110 00
Balance for the year, or surplus	17 72
Surplus at commencement of year	\$2,920 47
Deduct or add entries made in Profit & Loss account during the year, not included in the foregoing statement:—	
Add: discount on debt settled	5,000 00
	7,920 47
Deduct: capital stock dividend in 1869	\$4,000 00
depreciation in value of road and equipment	3,717 37
	7,717 37
Surplus at commencement of year as changed by aforesaid entries,	203 10

TOTAL SURPLUS September 30, 1879 **\$220 82**

INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	3
Horses	7
Harnesses (pairs of)	4
Sleighs	2
Other articles of equipment: (tools and snow plough)	

General Balance Sheet at Closing of Accounts September 30, 1879.

DR.	
Construction	\$25,550 00
Equipment	1,950 00
Land and buildings	1,500 00
Cash and cash assets:	220 82
Cash	\$185 82
Supplies	35 00
	\$29,220 82
CR.	
Capital stock	\$25,000 00
Unfunded debt	4,000 00
Surplus	220 82
	\$29,220 82

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.	
To Expenses	\$3,288 43
Interest	110 00
Capital stock dividend declared in 1869	4,000 00

Depreciation of road and equipment as per re-valuation made September 30, 1879	\$3,717 37
Balance forward September 30, 1879	220 82
	\$11,336 62
CR.	
By Balance September 30, 1878	\$2,920 47
Total income	3,416 15
Discount on debt settled by compromise	5,000 00
	\$11,336 62
DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings	2.69 miles.
Total length of track, measured as single track	2.69 miles.
Total length of track paved	1,800 feet.
Weight of rail per yard, and description of rail	41 lbs.
Description of the several lines or routes operated by the company:—	
Street railway from Centre station in Woburn, on the Woburn-Branch Railroad of the Boston & Lowell, to car stable at North Woburn.	
MILES RUN, ETC.	
Total number of miles run during the year	18,281
Total number of passengers carried in the cars	48,622
Total number of round trips for the year	3,398
Average number of passengers per round trip	14.31
Number of persons regularly employed by company	2
Rates of fare: 10 cents, 4 tickets for 25 cents to North Woburn.	

EDWARD E. THOMPSON,
DEXTER CARTER,
ALFRED G. CARTER,
JOHN R. CARTER,
Directors.
JOHN R. CARTER,
Treasurer.
DEXTER CARTER,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, ss. November 5, 1879. Then personally appeared Edward E. Thompson, Dexter Carter, Alfred G. Carter and John R. Carter, and severally made oath to the truth of the foregoing statement by them subscribed.

JOHN G. MAGUIRE,
Superintendent.

PROPER ADDRESS OF THE COMPANY.
NORTH WOBURN STREET RAILWAY COMPANY,
OFFICE, No. 168 MAIN STREET, WOBURN, MASS.

NAME AND RESIDENCE OF OFFICERS.

Edward E. Thompson, *President*, Woburn, Mass. Dexter Carter, *Superintendent*, North Woburn, Mass. John R. Carter, *Treasurer and Clerk of Corporation*, Woburn, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Edward E. Thompson, Woburn, Mass. Alfred G. Carter, Woburn, Mass. John R. Carter, Woburn, Mass. Dexter Carter, North Woburn, Mass. Joseph M. Eaton, North Woburn, Mass.

REPORT OF THE SALEM STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Naumkeag Street Railway Company.]

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$150,000 00	
Capital stock authorized by votes of company	150,000 00	
Capital stock paid in (par value of shares, \$100)		\$150,000 00
Number of stockholders	63	
DEBT.		
Funded debt, as follows:—		
Mortgage bonds due 1885, rate interest 6 per cent, ...	\$35,900 00	
Unfunded debt, as follows:—		
Notes payable	1,800 00	
TOTAL GROSS DEBT		\$37,700 00
Amount of cash assets:		427 43
Cash	\$219 69	
Debit balances	207 74	
NET DEBT		\$37,272 57
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION.		\$203,569 52
EQUIPMENT, LAND AND BUILDINGS.		
Buildings owned by company needed in operating road	\$5,283 84	
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.	208,853 36	
Cash, cash assets and materials on hand	427 43	
TOTAL PROPERTY AND ASSETS OF COMPANY		209,280 79
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.		
Land and buildings		\$1,655 84
REVENUE FOR THE YEAR.		
Received from other railways as tolls or rent:—		
Naumkeag Street Railway Company, rent of road	\$100 00	
Income from other sources:—		
Interest	510 34	
TOTAL INCOME FROM ALL SOURCES		\$610 34

NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES . . .	\$610 34
Surplus at commencement of year	20,970 45
TOTAL SURPLUS September 30, 1879	21,580 79
General Balance Sheet at Closing of Accounts September 30, 1879.	
DR.	
Construction	\$203,569 52
Land and buildings	5,283 84
Cash and cash assets:	427 43
Cash	\$219 69
Debit balance	207 74
	\$209,280 79
CR.	
Capital stock	\$150,000 00
Funded debt	35,900 00
Unfunded debt	1,800 00
Surplus	21,580 79
	\$209,280 79
Copy of Profit & Loss Account for the Year ending September 30, 1879.	
DR.	
To Balance September 30, 1879	\$21,580 79
CR.	
By Balance September 30, 1879	20,970 45
Total income	610 34
	\$21,580 79
DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings	7.785 miles.
Aggregate length of switches, sidings, etc.	.763 "
Total length of track, measured as single track	8,548 miles.
Total length of track paved	7.426 "
Description of the several lines or routes:—	
From railroad bridge, Bridge Street to March Street in Salem, chiefly with 42 lb. saddle rail; from March Street to Essex Bridge, chiefly with T rail; across Essex Bridge with strap rail; from thence to Union Street, Beverly, with 42 lb. saddle rail, and then to turn-table at Elliott Street with 27 lb. T rail. To Peabody, through Webster, Pleasant, Essex and Boston Streets with 71 lb. cast-iron corrugated rail, strap rail and 30 lb. and 40 lb. T rail; North Salem track laid with 19 lb. O'Brien and 26 lb. T wrought-iron rail; South Salem with 42 lb. saddle rail, and 2-inch strap iron on 4 x 5 springers; also 27 lb. T rail; Essex Street, from Pleasant to Webb Street, cast-iron corrugated.	

B. W. RUSSELL,
HENRY WHEATLAND,
ZINA GOODELL,
SAM'L ANDREWS,
Directors.
WILLIAM MACK,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

ESSEX, ss. SALEM, October 31, 1879. Then personally appeared B. W. Russell, Henry Wheatland, Zina Goodell and Samuel P. Andrews, and severally made oath to the truth of the foregoing statement by them subscribed.

GEO. D. PHIPPEN,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

SALEM STREET RAILWAY,
No. 233 ESSEX STREET, SALEM, MASS.

NAME AND RESIDENCE OF OFFICERS.

Benjamin W. Russell, *President*, Salem, Mass. William Mack, *Treasurer*, Salem, Mass. Henry Wheatland, *Clerk of Corporation*, Salem, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Samuel P. Andrews, Salem, Mass. Henry Wheatland, Salem, Mass. Benjamin W. Russell, Salem, Mass. Asa P. Robinson, Salem, Mass. Zina Goodell, Salem, Mass.

REPORT

OF THE

SOMERVILLE HORSE STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[Leased to and operated by the Union Railway Company.]

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$113,000 00	
Capital stock authorized by votes of company	113,000 00	
Capital stock paid in		\$113,000 00
Number of stockholders	55	
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION	\$113,000 00	
TOTAL PROPERTY AND ASSETS OF COMPANY		\$113,000 00
REVENUE FOR THE YEAR.		
Received from other railways as tolls or rent:—		
Union Railway Company	\$5,880 00	
Middlesex Railway Company	900 00	
TOTAL INCOME FROM ALL SOURCES		\$6,780 00
NET INCOME, DIVIDENDS, ETC.		
TOTAL NET INCOME ABOVE OPERATING EXPENSES		\$6,780 00
Dividends declared, 6 per cent for the year		6,780 00
General Balance Sheet at Closing of Accounts September 30, 1879.		
DR.		
Construction		\$113,000 00
CR.		
Capital stock		\$113,000 00
Copy of Profit & Loss Account for the Year ending September 30, 1879.		
DR.		
To Dividends		\$6,780 00
CR.		
By Total income		\$6,780 00

DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings	3.753 miles.
Aggregate length of switches, sidings, etc.	.274 “
Total length of track, measured as single track	4.027 miles.
Total length of track paved	3.303 “
Description of rail: Rolled iron.	

SAMUEL E. SEWALL,
CHARLES E. POWERS,
GEO. W. PALMER,
R. E. DEMMON,

Directors.

GEO. W. PALMER,

Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 4, 1879. Then personally appeared Samuel E. Sewall, Charles E. Powers, Geo. W. Palmer and R. E. Demmon, and severally made oath to the truth of the foregoing statement by them subscribed.

JOSEPH M. PATTEN,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

SOMERVILLE HORSE RAILROAD COMPANY,
27 TREMONT ROW, BOSTON, MASS.

NAME AND RESIDENCE OF OFFICERS.

Samuel E. Sewall, *President*, Melrose, Mass. Geo. W. Palmer, *Treasurer and Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Samuel E. Sewall, Melrose, Mass. Clark Bennett, Somerville, Mass. Reuben E. Denmon, Boston, Mass. Charles E. Powers, Boston, Mass. Geo. W. Palmer, Boston, Mass.

REPORT

OF THE

SOUTH BOSTON STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBTS.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$500,000 00	
Capital stock authorized by votes of company	500,000 00	
Capital stock paid in (par value of shares, \$50)		\$500,000 00
Number of stockholders	227	
DEBT.		
Funded debt, as follows:		\$83,500 00
Mortgage notes	\$83,500 00	
Unfunded debt, as follows:		97,217 79
Notes payable	63,000 00	
Credit balances	34,217 79	
TOTAL GROSS DEBT		\$180,717 79
Amount of cash assets:		26,157 98
Cash	\$12,766 43	
Supplies	9,482 65	
Debit balances	3,908 90	
NET DEBT		\$154,559 81
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$263,314 14
EQUIPMENT, LAND AND BUILDINGS.		
Horses		\$69,160 00
Cars		85,212 40
Other articles of equipment		68,821 92
TOTAL COST OF EQUIPMENT		\$223,194 32
TOTAL COST OF LAND AND BUILDINGS		193,060 24
Other property owned by company, including land and buildings not needed for operating road:—		
House, corner of Fourth and P Streets		10,000 00
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC..		\$689,568 70
Cash, cash assets and materials on hand		26,157 98
TOTAL PROPERTY AND ASSETS OF COMPANY		\$715,726 68

PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.	
Extension of tracks (number of feet, 9,996)	\$38,273 86
New horses (number, 100)	13,000 00
New cars (number, 26)	19,126 40
Other equipment	775 00
Land and buildings	10,698 76
TOTAL ADDITION TO PROPERTY	\$81,874 02
REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$302,280 23
Received from sales of manure	1,870 00
TOTAL EARNINGS	304,150 23
Income from other sources	1,125 27
Rents \$328 30	
Miscellaneous sources 796 97	
TOTAL INCOME FROM ALL SOURCES	\$305,275 50
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$18,358 40
Repairs of cars and other vehicles, harness and horse-shoeing	25,377 83
Repairs of buildings	2,225 42
Renewal of horses	7,042 00
Wages and salaries of president, treasurer, superintendent and their clerks	7,274 85
Wages and salaries of all other persons employed in operating the road	117,327 78
Provender	41,610 68
Taxes, state and local	6,694 25
Rent and tolls paid other companies for use of their roads:—	
Track service (estimated), Metropolitan Railway Company	8,500 00
Insurance	2,945 44
Damages for injuries to persons and property	1,977 09
Office expenses, and all other expenses not included above	18,124 76
TOTAL EXPENSES OF OPERATING	\$257,458 51
Percentage of expenses to income 85.	
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$47,816 99
Interest accrued during the year	7,586 76
Dividends declared, 6 per cent for the year	28,800 00
Balance for the year, or surplus	11,430 23
Surplus at commencement of year \$20,863 66	
Add entries made in Profit & Loss account during the year, not included in the foregoing statement:—	
Premium on stock sold 2,715 00	
Surplus at commencement of year as changed by aforesaid entries	23,578 66
TOTAL SURPLUS September 30, 1879	\$35,008 89
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	72
Open cars	40
Horses	532
Harnesses (pairs of)	160
Other articles of equipment:—	
Snow ploughs, snow sleds, sand car, tip-cart, 4 wagons, 2 carriages, 3 pungs, tools in blacksmith's shop, paint, wood and harness shops, office and stable furniture.	

General Balance Sheet at closing of Accounts September 30, 1879.

Dr.		
Construction		\$263,314 14
Equipment		223,194 32
Land and buildings		193,060 24
Other property		10,000 09
Cash and cash assets:		26,157 98
Cash	\$12,766 43	
Supplies	9,482 65	
Sinking fund, debit balances	3,908 90	
		\$715,726 68
CR.		
Capital stock		\$500,000 00
Funded debt		83,500 00
Unfunded debt		63,000 00
Credit balances		34,217 79
Surplus		35,008 89
		\$715,726 68

Copy of Profit & Loss Account for the Year ending September 30, 1879.

Dr.		
To Expenses		\$257,458 51
Interest		7,586 76
Dividends		28,800 00
Balance September 30, 1879		35,008 89
		\$328,854 16
CR.		
By Balance September 30, 1878		\$20,863 66
Total income		305,275 50
Premium on stock sold		2,715 00
		\$328,854 16

DESCRIPTION OF RAILWAY.

Length of railway owned by company, measured as single track, exclusive of sidings	11.050 miles.	
Aggregate length of switches, sidings, etc.	.810 "	
Total length of track measured as single track		11.205 miles.
Total length of track paved		All paved.
Weight of rail per yard	42, 45, 47, and 50 lbs.	
Description of the several lines or routes operated by the company:—		
From City Point, via Broadway, to Scollay Square and Brattle Street.		
From K street, via Broadway, to Scollay Square and Brattle Street.		
From Dorchester, via Broadway, to Scollay Square and Brattle Street.		
From Bay View, via Eighth Street, to Scollay Square and Brattle Street.		
From K Street to Providence Depot, via Dover Street.		
From northern to southern depots.		
Length of railway belonging to other companies, measured as single track, not including sidings, etc., operated by this company, or over which this company runs its cars, with description of same:—		
City Point, via Broadway, to Scollay Square, use per round trip		Metro. Track. 10,191 feet.

City Point, via Broadway, to Brattle Street, use per round trip,	Metro. Track. 11,257 feet.
K Street to Scollay Square, use per round trip	10,191 "
K Street to Brattle Street, use per round trip	11,257 "
Dorchester Street to Scollay Square, use per round trip	10,191 "
Dorchester Street to Brattle Street, use per round trip	11,257 "
Bay View to Scollay Square, use per round trip	11,934 "
Bay View to Brattle Street, use per round trip	11,257 "
K Street to Providence Depot, use per round trip	7,404 "
Northern to southern depots line, use in round trip: Metropolitan track, 10,845 feet; Middlesex, 1,064 feet; and Union, 651 feet.	
Total length of railway, measured as single track, not including sidings, etc., operated by this company	13 miles.
MILES RUN, ETC.	
Total number of miles run during the year	951,162
Average cost per mile run 27 cents.	
Total number of passengers carried in the cars	6,068,673
Total number of round trips for the year	157,820
Average number of passengers per round trip 38.45	
Number of persons regularly employed by company	276
Rates of fare: Cash fare, 6 cents; 5 tickets for 25 cents.	

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL.		FROM THEIR OWN MISCONDUCT OR CARELESSNESS.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	—	—	5	—	5
Employés	—	—	—	—	—	—
Others	—	—	—	5	—	5

STATEMENT OF EACH ACCIDENT.

October 7, 1878. — H. Dever fell off the car near I Street, intoxicated; not injured much.

October 15, 1878. — Ann Driscoll, in a state of bewildered intoxication, ran against a car on Federal Street; fell under, the car passing over her right foot, which was amputated the following day at Massachusetts Hospital.

October 19, 1878. — A Mr. Steadman was thrown from his wagon by collision with a car; collar-bone and shoulder-joint injured.

December 12, 1878. — Michael Welch, while removing paving-stone near Park Street, put his crowbar under a car to pry up the stone; the car struck the bar, causing it to knock him down; not seriously injured.

January 11, 1879. — A boy named E. O'Donnell, while coasting, ran under a horse; but slightly injured.

March 3, 1879. — A boy, Michael D. Driscoll, was slightly injured by collision of cars 21 and 37, on Washington Street, near Summer Street: collision was caused by a misplaced switch.

May 23, 1879. — H. K. Adams, in stepping off a car at Albany Station, was injured by falling in the act of getting off car; injuries supposed to be slight.

June 16, 1879. — John Riley, in an intoxicated condition, fell under a car on Broadway, near Dorchester Street; the car passed over his leg, which was amputated at hospital during the evening.

June 28, 1879. — A man named Ham stepped from a car backwards while in motion, and was slightly injured.

August 28, 1879. — A cart collided with a car on Dorchester Avenue; John Haley was thrown therefrom and somewhat injured.

J. B. CROSBY,
D. L. BRADFORD,
BENJAMIN DEAN,
NATHANIEL J. RUST,
JAMES C. DAVIS,
JOSEPH F. GREENOUGH,
Directors.
WILLIAM REED,
Treasurer.
P. BATES,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. October 30, 1879. Then personally appeared J. B. Crosby, D. L. Bradford, Benjamin Dean, Nathaniel J. Rust, Joseph F. Greenough, William Reed and P. Bates, and severally made oath to the truth of the foregoing statement by them subscribed.

JAMES C. DAVIS,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

SOUTH BOSTON RAILWAY COMPANY,
715 EAST BROADWAY, SOUTH BOSTON.

NAME AND RESIDENCE OF OFFICERS.

J. B. Crosby, *President*, Boston, Mass. Phineas Bates, *Superintendent*, Boston, Mass. William Reed, *Treasurer and Clerk of Corporation*, Boston, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

J. B. Crosby, Boston, Mass. D. L. Bradford, South Boston, Mass. Benjamin Dean, South Boston, Mass. Geo. W. W. Dove, Andover, Mass. N. J. Rust, Boston, Mass. Jos. F. Greenough, Cambridge, Mass. James C. Davis, Boston, Mass.

REPORT

OF THE

SPRINGFIELD STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBT.			
CAPITAL STOCK.			
Capital stock authorized by charter	\$100,000	00	
Capital stock authorized by votes of company	100,000	00	
Capital stock paid in (par value of shares, \$100)			\$100,000 00
Number of stockholders		24	
DEBT.			
Unfunded debt, as follows:—			
Guarantee fund*	\$4,400	00	
Unredeemed tickets	1,751	45	
TOTAL GROSS DEBT			\$6,151 45
Amount of cash assets			24,810 65
Cash	\$17,961	14	
Supplies	5,836	92	
Debit balances	1,012	59	
COST OF RAILWAY EQUIPMENT AND PROPERTY.			
RAILWAY.			
TOTAL COST OF CONSTRUCTION			\$62,155 71
EQUIPMENT, LAND AND BUILDINGS.			
Horses	\$4,921	66	
Cars	6,993	40	
Other articles of equipment	1,579	82	
TOTAL COST OF EQUIPMENT	13,494	88	
Land and buildings owned by company needed in operating road,			23,583 65
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.	99,234	24	
Cash, cash assets, and materials on hand			24,810 65
TOTAL PROPERTY AND ASSETS OF COMPANY			124,044 89
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.			
Land and buildings			\$8,389 27

* This sum is money paid the company to extend its lines and run its cars for a fixed period, which has not expired.

REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$27,267 39
Received from sales of manure	283 83
TOTAL EARNINGS	27,551 22
Income from other sources:	1,365 63
Rents	\$1,008 97
Advertising	356 66
TOTAL INCOME FROM ALL SOURCES	\$28,916 85
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$687 17
Repairs of cars and other vehicles, harness and horse-shoeing	3,305 00
Repairs of buildings	116 15
Renewal of horses	554 00
Wages and salaries of president, treasurer, superintendent and their clerks	2,400 00
Wages and salaries of all other persons employed in operating the road	7,604 41
Provender	3,440 12
Taxes, state and local	633 54
Insurance	72 50
Damages for injuries to persons and property	40 30
Office expenses, and all other expenses not included above	750 80
TOTAL EXPENSE OF OPERATING	\$19,603 99
Percentage of expenses to income	67+
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$9,312 86
Dividends declared, 58 per cent for the year	29,000 00
Deficit for the year	19,687 14
Surplus at commencement of year	\$38,248 26
Deduct entries made in Profit & Loss account during the year, not included in the foregoing statement:—	
Unredeemed tickets	667 68
Surplus at commencement of year as changed by aforesaid entries	37,580 58
TOTAL SURPLUS September 30, 1879	\$17,893 44
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	9
Horses	39
Harnesses (pairs of)	20
Omnibuses	1
Sleighs	5
Other articles of equipment:—	
Safe and office furniture, snow plough, wagons, etc.	
General Balance Sheet at Closing of Accounts September 30, 1879.	
DR.	
Construction	\$62,155 71
Equipment	13,494 88
Land and buildings	23,583 65
Cash and cash assets:	24,810 65
Cash	\$17,961 14
Supplies and debit balances	6,849 51
	\$124,044 89

Cr.		
Capital stock		\$100,000 00
Unfunded debt:—		
Guarantee fund		4,400 00
Unredeemed tickets		1,751 45
Surplus		17,893 44
		\$124,044 89
Copy of Profit & Loss Account for the Year ending September 30, 1879.		
Dr.		
To Expenses		\$19,603 99
Dividends		29,000 00
Unredeemed tickets		667 68
Balance September 30, 1879		17,893 44
		\$67,165 11
Cr.		
By Balance September 30, 1878		\$38,248 26
Total income		28,916 85
		\$67,165 11
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured as single track, exclusive of sidings	4.370 miles.	
Aggregate length of switches, sidings, etc.	.800 "	
Total length of track, measured as single track		5.170 miles.
Total length of track paved and macadamized		4.70 "
Weight of rail per yard, and description of rail (wrought iron)		33 lbs.
Description of the several lines or routes operated by the company:—		
From Wason Avenue on North Main, on Main Street to Locust Street, thence on Locust Street to Mill River	3.03 miles.	
From Main Street on State Street to Boston road	1.34 "	
Total length of railway, measured as single track, not including sidings, etc., operated by this company		4.37 miles.
MILES RUN, ETC.		
Total number of miles run during the year		129,832
Average cost per mile run	15.09 cents.	
Total number of passengers carried in the cars		397,613
Total number of round trips for the year		26,261
Average number of passengers per round trip	15.14	
Number of persons regularly employed by company		18
Rates of fare: Cash, 8 cents; children, 5 cents; 16 tickets for 1 dollar; 100 tickets for 5 dollars.		

JOHN OLMSTED,
C. L. COVELL
JAMES KIRKHAM,
HOMER FOOT,

Directors.

JOHN OLMSTED,

Treasurer.

F. E. KING,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

HAMPDEN, ss. October 14, 1879. Then personally appeared John Olmsted, C. L. Covell, James Kirkham, F. E. King and Homer Foot, and severally made oath to the truth of the foregoing statement by them subscribed, according to the best of their knowledge and belief.

GEORGE LEONARD,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

SPRINGFIELD STREET RAILWAY COMPANY,
278 NORTH MAIN STREET, SPRINGFIELD, MASS.

NAME AND RESIDENCE OF OFFICERS.

John Olmsted, *President*, Springfield, Mass. F. E. King, *Superintendent*, Springfield, Mass. John Olmsted, *Treasurer*, Springfield, Mass. Gideon Wells, *Clerk of Corporation*, Springfield, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

John Olmsted, G. M. Atwater, C. L. Covell, James Kirkham, Homer Foot, all of Springfield, Mass.

REPORT

OF THE

STONEHAM STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBT.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$50,000 00	
Capital stock authorized by votes of company	33,000 00	
Capital stock paid in (par value of shares, \$100)		\$33,000 00
Total number of stockholders	15	
DEBT.		
Bills payable		\$3,000 05
Amount of cash assets		843 02
Cash	\$282 16	
Debit balances	560 89	
NET DEBT		\$2,165 90
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$33,600 00
EQUIPMENT, LAND AND BUILDINGS.		
Horses		\$2,100 00
Cars		2,800 00
Other articles of equipment		383 98
TOTAL COST OF EQUIPMENT		5,283 98
Land owned by company needed in operating road		500 00
Buildings owned by company needed in operating road		2,791 12
TOTAL COST OF LAND AND BUILDINGS		3,291 15
Other property owned by company, including land and buildings not needed for operating road		1,500 00
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.		43,675 10
Cash, cash assets and materials on hand		843 05
TOTAL PROPERTY AND ASSETS OF COMPANY		44,518 15
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.		
New horses (number, 12)		\$1,148 80
New cars (number, 1)		430 88
Land and buildings		459 43
TOTAL ADDITION TO PROPERTY		2,039 11
Property sold or reduced in valuation on the books:—		
Equipment, ten horses sold		1,748 80
NET ADDITION TO PROPERTY FOR THE YEAR		290 31

REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$12,665 56
Received from mails and express	250 00
Received from sales of manure	108 00
TOTAL INCOME FROM ALL SOURCES	\$13,023 56
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of cars and other vehicles, harness and horse-shoeing	\$1,490 15
Repairs of buildings	687 79
Renewal of horses	229 28
Wages and salaries of all other persons employed in operating the road	3,473 78
Provender	1,946 12
Taxes, state and local	120 82
Insurance	67 20
Damages for injuries to persons and property	677 99
Snow expenses	16 24
Office expenses, and all other expenses not included above	755 75
TOTAL EXPENSE OF OPERATING	\$9,465 12
Percentage of expenses to income 72.80	
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$3,558 44
Interest accrued during the year	201 00
Dividends declared, 3 per cent for the year	990 00
Balance for the year, or surplus	2,367 44
Surplus at commencement of year \$7,899 51	
Deduct entries made in Profit & Loss account during the year, not included in the foregoing statement:—	
Reduction in value of equipment, etc. 1,748 80	
Surplus at commencement of year as changed by aforesaid entries	6,150 71
TOTAL SURPLUS September 30, 1879	8,518 15
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	5
Open cars	2
Horses	21
Harnesses (pairs of)	8
Sleighs	2
Other articles of equipment:—	
Snow plough	1
General Balance Sheet at Closing of Accounts September 30, 1879.	
Dr.	
Construction	\$33,600 00
Equipment	5,283 98
Land and buildings	3,291 12
Other property	1,500 00
Cash and cash assets:	843 05
Cash \$282 16	
Debit balances 560 89	
	\$44,518 15
Cr.	
Capital stock	\$33,000 00
Unfunded debt	3,000 00
Surplus	8,518 15
	\$44,518 15

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.		
To Expenses		\$9,465 12
Interest		201 00
Dividends		990 00
Reduction in equipment, etc.		1,748 80
Balance September 30, 1879		8,518 50
		\$20,923 07
CR.		
By Balance September 30, 1878		\$7,899 51
Total income		13,023 56
		20,923 07
DESCRIPTION OF RAILWAY.		
Length of railway owned by company, measured as single track, exclusive of sidings 2.68 miles.		
Aggregate length of switches sidings, etc. 05 "		
Total length of track, measured as single track		2.73 miles.
Weight of rail per yard		33 lbs.
Description of the several lines or routes operated by the company:—		
From Stoneham Centre to Highland Station, B. & M. R.R.		
Total length of railway, measured as single track, not including sidings, etc., operated by this company		2.68 miles.
MILES RUN, ETC.		
Total number of miles run during the year		40,000
Average cost per mile run 23.66 cents.		
Total number of passengers carried in the cars		139,424
Total number of round trips for the year		8,000
Average number of passengers per round trip 16.67		
Number of persons regularly employed by company		9
Rates of fare: 10 cents.		

LIST OF ACCIDENTS.

	FROM CAUSES BEYOND THEIR OWN CONTROL.		FROM THEIR OWN MISCONDUCT OR CARELESSNESS.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers	—	—	—	1	—	1
Employés	—	—	—	—	—	—
Others	—	—	—	—	—	—

STATEMENT OF EACH ACCIDENT.

George Moncreif, while riding on the rear platform of the car, was thrown from the cars, and broke his leg.

ALONZO V. LYNDE,
 LYMAN DIKE,
 GEO. W. DIKE,
 WM. HURD,
 JOHN HILL,

Directors.

LYMAN DIKE,
Treasurer and Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, ss. November 3, 1879. Then personally appeared Alonzo V. Lynde, Lyman Dike, George W. Dike, William Hurd and John Hill, and severally made oath to the truth of the foregoing statement by them subscribed.

ONSLOW GILMORE,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

STONEHAM STREET RAILROAD COMPANY,
STONEHAM, MASS.

NAME AND RESIDENCE OF OFFICERS.

Alonzo V. Lynde, *President*, Melrose, Mass. Lyman Dike, *Superintendent, Treasurer and Clerk of Corporation*, Stoneham, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Alonzo V. Lynde, Melrose, Mass. George W. Dike, Stoneham, Mass. William Hurd, Stoneham, Mass. John Hill, Stoneham, Mass. Lyman Dike, Stoneham, Mass.

REPORT
OF THE
TAUNTON STREET RAILWAY COMPANY,
FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBT.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$75,000 00	
Capital stock authorized by votes of company	40,000 00	
Capital stock paid in (par value of shares, \$100)		\$40,000 00
Number of stockholders	113	
DEBT, ETC.		
Unfunded debt		\$6,000 00
Cash		5,045 19
NET DEBT		\$954 81
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$24,000 00
EQUIPMENT, LAND AND BUILDINGS.		
Horses		\$2,990 00
Cars		7,500 00
Other articles of equipment		1,500 00
TOTAL COST OF EQUIPMENT		11,990 00
Buildings owned by company needed in operating road		10,000 00
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.		45,990 00
Cash, cash assets and materials on hand		5,045 19
TOTAL PROPERTY AND ASSETS OF COMPANY		51,035 19
PROPERTY ACCOUNTS: CREDITS DURING THE YEAR.		
Horse sold		\$85 00
REVENUE FOR THE YEAR.		
Received from passengers on railways operated by this company, including tickets		\$17,362 36
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.		
Repairs of road-bed and track		\$700 00
Repairs of cars and other vehicles, harness and horse-shoeing		1,650 00
Repairs of buildings		900 00
Wages and salaries of president, treasurer, superintendent and their clerks		1,200 00

Wages and salaries of all other persons employed in operating the road	\$5,400 93
Provender	2,946 34
Taxes, state and local	218 72
Insurance	201 25
Office expenses, and all other expenses not included above	1,844 31
TOTAL EXPENSE OF OPERATING	15,061 55
Percentage of expenses to income 86.75	
NET INCOME, DIVIDENDS, ETC.	
NET INCOME ABOVE OPERATING EXPENSES	\$2,300 81
Interest accrued during the year	302 50
Dividends declared, 3 per cent for the year	1,200 00
Balance for the year, or surplus	798 31
Surplus at commencement of year	4,236 88
TOTAL SURPLUS September 30, 1879	5,035 19
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	8
Open cars	3
Horses	30
Harnesses (pairs of)	20
General Balance Sheet at Closing of Accounts September 30, 1879.	
Dr.	
Construction	\$24,000 00
Equipment	11,990 00
Land and buildings	10,000 00
Cash	5,045 19
	\$51,035 19
Cr.	
Capital stock	\$40,000 00
Unfunded debt	6,000 00
Surplus	5,035 19
	\$51,035 19
Copy of Profit & Loss Account for the Year ending September 30, 1879.	
Dr.	
To Expenses	\$15,061 55
Interest	302 50
Dividends	1,200 00
Balance September 30, 1879	5,035 19
	\$21,599 24
Cr.	
By Balance September 30, 1878	\$4,236 88
Total income	17,362 36
	\$21,599 24
DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings	4.09 miles.
Aggregate length of switches, sidings, etc.	.228 "
Total length of track, measured as single track	4.318 miles.
Weight of rail per yard, and description of rail	24 lbs.
Total length of railway, measured as single track, not including sidings, etc., operated by this company	4.09 miles.

MILES RUN, ETC.	
Total number of miles run during the year	79,990
Total number of passengers carried in the cars	317,983
Total number of round trips for the year	13,710
Average number of passengers per round trip 23	
Number of persons regularly employed by company	9
Rates of fare: Single, 8 cents; 4 for 25 cents; 17 for \$1.	

HENRY G. REED,
A. J. BARKER,
H. W. CHURCH,
CHARLES FOSTER,
HENRY M. LOVERING,
GEO. A. FIELD,
P. I. PERRIN,
Directors.
HENRY M. LOVERING,
Treasurer.

COMMONWEALTH OF MASSACHUSETTS.

BRISTOL, ss. November 7, 1879. Then personally appeared A. J. Barker, H. W. Church, Charles Foster, George A. Field and P. I. Perrin, and severally made oath to the truth of the foregoing statement by them subscribed.

HENRY WILLIAMS,
Justice of the Peace.

COMMONWEALTH OF MASSACHUSETTS.

BRISTOL, ss. November 8, 1879. Then personally appeared the above-named Henry M. Lovering, and made oath to the truth of the foregoing statement by him subscribed.

HENRY WILLIAMS,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.
TAUNTON STREET RAILWAY COMPANY,
TAUNTON, MASS.

NAME AND RESIDENCE OF OFFICERS.

William C. Lovering, *President*, Taunton, Mass. George C. Morse, *Superintendent*, Taunton, Mass. Henry M. Lovering, *Treasurer*, Taunton, Mass. Orville A. Barker, *Clerk of Corporation*, Taunton, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William C. Lovering, Henry G. Reed, A. J. Barker, William H. Phillips, H. W. Church, George A. Field, John Seckel, Charles Foster, P. I. Perrin, Henry M. Lovering, all of Taunton.

REPORT

OF THE

UNION STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBT.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$500,000 00	
Capital stock authorized by votes of company	400,000 00	
Capital stock paid in (par value of shares, \$100)		\$374,300 00
Number of stockholders	100	
DEBT.		
Unfunded debt, as follows:—		
Mortgage	\$34,000 00	
Floating	180,617 59	
TOTAL GROSS DEBT		\$214,617 59
Amount of cash assets:		75,566 52
Cash	\$60,692 05	
Supplies	1,469 20	
Debit balances	13,405 27	
NET DEBT		\$139,051 07
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.*		
EQUIPMENT, LAND AND BUILDINGS.		
Horses (900)		\$99,000 00
Cars (128)		64,000 00
Other articles of equipment		27,604 20
TOTAL COST OF EQUIPMENT		190,604 20
Land owned by company needed in operating road		166,817 09
Buildings owned by company needed in operating road		189,169 72
TOTAL COST OF LAND AND BUILDINGS		355,986 81
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.		546,591 01
Cash, cash assets and materials on hand		75,566 52
TOTAL PROPERTY AND ASSETS OF COMPANY		622,157 53
PROPERTY ACCOUNTS: CHARGES AND CREDITS DURING THE YEAR.		
New horses (number, 86)		\$10,320 00
Property sold or reduced in valuation on the books:—		
Horses	\$9,000 00	
Cars	5,510 50	
Other equipments	4,772 51	
Land and buildings	649 04	
		19,932 05
NET DECREASE OF PROPERTY FOR THE YEAR		\$9,612 05

* This company does not own any tracks in the highways, but leases those of the Cambridge, Arlington, and a portion of the Somerville Railroad Companies'.

REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$461,705 69
Received from sales of manure	5,764 07
TOTAL EARNINGS	467,469 76
Income from other sources	6,657 05
TOTAL INCOME FROM ALL SOURCES	474,127 41
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$3,616 63
Repairs of cars and other vehicles, harness and horse-shoeing	14,830 13
Repairs of buildings	1,637 61
Renewal of horses	26,533 25
Wages and salaries of president, treasurer, superintendent and their clerks	11,780 00
Wages and salaries of all other persons employed in operating the road	170,666 42
Provender	60,386 45
Taxes, state and local	8,239 24
Rent and tolls paid other companies for use of their roads:	87,066 00
Arlington Railway Company	\$816 00
Somerville Railway Company	5,880 00
Cambridge Railway Company	80,370 00
Insurance	1,484 85
Damages for injuries to persons and property	4,352 65
Office expenses, and all other expenses not included above	37,772 44
TOTAL EXPENSE OF OPERATING	428,365 67
Percentage of expenses to income	90.34
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$45,761 74
Interest accrued during the year	7,570 15
Dividends declared, 10 per cent for the year	37,430 00
Balance for the year, or surplus	761 59
Surplus at commencement of year	32,478 35
TOTAL SURPLUS September 30, 1879	33,239 94
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	96
Open cars	32
Horses	900
Harnesses (pairs of)	300
Sleighs	14
General Balance Sheet at Closing of Accounts September 30, 1879.	
DR.	
Equipment	\$190,604 20
Land and buildings	355,986 81
Cash and cash assets:	75,566 52
Cash	\$60,692 05
Supplies	1,469 20
Debit balances	13,405 27
	\$622,157 53
CR.	
Capital stock	\$374,300 00
Unfunded debt	214,617 59
Surplus	33,239 94
	\$622,157 53

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.										
To Expenses	.	.	.	.	.	.	.	.	.	\$428,365 67
Interest	.	.	.	.	.	.	.	.	.	7,570 15
Dividends	.	.	.	.	.	.	.	.	.	37,430 00
Balance September 30, 1879 .	.	.	.	.	.	.	.	.	.	33,239 94
										\$506,605 76
CR.										
By Balance September 30, 1878 .	.	.	.	.	.	.	.	.	.	\$32,478 35
Total income	.	.	.	.	.	.	.	.	.	474,127 41
										\$506,605 76

DESCRIPTION OF RAILWAY.

Description of the several lines or routes operated by the company:—

Harvard Square, Prospect Street, Mt. Auburn, North Avenue,
Central Square, River Street, Watertown, Cambridge
Street, Broadway, Eighth Street, Pearl Street, Spring
Street, Union Square, Inman Street, Baldwin Street,
Brighton, Arlington, Somerville, Craigie Street.

Length of railway belonging to other companies, measured as single track, not including sidings, etc., operated by this company, *or over which this company runs its cars*, with description of same:—

Arlington	1.5625 miles.
Somerville	2.6250 "
Cambridge	33.5308 "

Total length of railway, measured as single track, not including sidings, etc., operated by this company	52,930
--	--------

37.7183 miles.

MILES RUN, ETC.

Total number of miles run during the year	1,548,329
Average cost per mile run 27.66 cents.	
Total number of passengers carried in the cars	8,572,409
Total number of round trips for the year	207,140
Average number of passengers per round trip 41	
Number of persons regularly employed by company	313
Rates of fare: Cash, 3, 5, 6, 8, 10, 12, 15 cents; tickets, 5, 7½, 10, 12½ cents.	

JAMES W. EMERY,
K. S. CHAFFEE,
ESTES HOWE,
SAMUEL B. RINDGE,
GEO. P. CARTER,
JOHN J. BRIGHT,
FRED'K T. STEVENS,
Directors.
FRED'K T. STEVENS,
Treasurer.
RICHARD HAPGOOD,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, ss. October 10, 1879. Then personally appeared James W. Emery, K. S. Chaffee, Estes Howe, Samuel B. Rindge, George P. Carter, John J. Bright, Frederick T. Stevens and Richard Hapgood, and severally made oath to the truth of the foregoing statement by them subscribed.

SAMUEL F. RUGG,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.
UNION RAILWAY COMPANY,
CAMBRIDGE, MASS.

NAME AND RESIDENCE OF OFFICERS.

James W. Emery, *President*, Cambridge, Mass. Richard Hapgood, *Superintendent*, Cambridge, Mass. Frederick T. Stevens, *Treasurer and Clerk of Corporation*, Cambridge, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

James W. Emery, Knowlton S. Chaffee, James C. Fisk, Samuel B. Rindge, Estes Howe, Edwin Dresser, George P. Carter, Joseph H. Converse, John J. Bright, Frederick T. Stevens, all of Cambridge, Mass.

REPORT

OF THE

WALTHAM & NEWTON STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBT.	
CAPITAL STOCK.	
Capital stock authorized by charter	\$30,000 00
Capital stock authorized by votes of company	30,000 00
Capital stock paid in (par value of shares, \$100)	\$30,000 00
Number of stockholders	89
DEBT, ETC.	
Bills payable	\$18,075 00
Accounts	540 57
TOTAL GROSS DEBT	\$18,615 57
Cash	593 95
NET DEBT	\$18,021 62
COST OF RAILWAY, EQUIPMENT AND PROPERTY.	
RAILWAY.	
TOTAL COST OF CONSTRUCTION	\$37,493 41
EQUIPMENT, LAND AND BUILDINGS.	
Horses	\$1,500 00
Cars	2,225 00
Other articles of equipment	2,064 62
TOTAL COST OF EQUIPMENT	5,789 62
Land owned by company needed in operating road	500 00
Buildings owned by company needed in operating road	2,948 88
TOTAL COST OF LAND AND BUILDINGS	3,448 88
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.	46,731 91
Cash, cash assets and materials on hand	593 95
TOTAL PROPERTY AND ASSETS OF COMPANY	47,325 86
REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$7,195 30
Received from mails	50 00
Received from sales of manure	122 00
TOTAL INCOME FROM ALL SOURCES	\$7,367 30
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$659 37
Repairs of cars and other vehicles, harness and horse-shoeing	227 81

Wages and salaries of president, treasurer, superintendent and their clerks	\$1,020 00
Wages and salaries of all other persons employed in operating road	2,492 28
Provender	1,173 56
Taxes, state and local	19 04
Insurance	48 75
Office expenses and all other expenses not included above	1,133 14

TOTAL EXPENSE OF OPERATING	\$6,773 95
Percentage of expenses to income	91.94

NET INCOME, DIVIDENDS, ETC.

TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$593 35
Deficit at commencement of year	1,883 06
TOTAL DEFICIT September 30, 1879	\$1,289 71

INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.

Box-cars	4
Horses	12
Harnesses (pairs of)	5
Omnibuses	2
Sleighs	3

General Balance Sheet at Closing of Accounts September 30, 1879.

DR.	
Construction	\$37,493 41
Equipment	5,789 62
Land and buildings	3,448 88
Cash	593 95
Deficit September 30, 1879	1,289 71

\$48,615 57

CR.	
Capital stock	\$30,000 00
Unfunded debt	18,075 00
Accounts payable	540 57

\$48,615 57

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.	
To Balance September 30, 1878	\$1,883 06
Expenses	6,773 95

\$7,657 01

CR.	
By Total income	\$7,367 30
Balance September 30, 1879	1,289 71

\$7,657 01

DESCRIPTION OF RAILWAY.

Length of railway owned by company, measured as single track, exclusive of sidings	3.211 miles.
Aggregate length of switches, sidings, etc.	.057 "
Total length of track, measured as single track	3.268 miles.
Total length of track paved	500 feet.
Description of the several lines or routes operated by the company:—	

One single track, extending from Weston Street, Waltham, to Highland Street, West Newton.

Total length of railway, measured as single track, not including sidings, etc., operated by this company	3.211 miles.
--	--------------

MILES RUN, ETC.	
Total number of miles run during the year	21,906
Average cost per mile run 32.4 cents.	
Total number of passengers carried in the cars	97,681
Total number of round trips for the year	3,651
Average number of passengers per round trip 26 $\frac{3}{4}$	
Number of persons regularly employed by company	8
Rates of fare: 6, 8 and 12 cents; tickets per package, 10 for 1 dollar and 20 for 1 dollar.	

ROYAL E. ROBBINS,
H. J. OLNEY,
G. H. SHIRLEY,
H. P. SHERMAN,
L. C. LANE,

Directors.

H. J. OLNEY,

Treasurer.

H. P. SHERMAN,

Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

MIDDLESEX, ss. October 31, 1879. Then personally appeared Henry J. Olney, and made oath to the truth of the foregoing statement by him subscribed.

ENOS T. LUCE,

Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

WALTHAM & NEWTON STREET RAILWAY COMPANY,
OFFICE OF AMERICAN WATCH COMPANY, WALTHAM, MASS.

NAME AND RESIDENCE OF OFFICERS.

R. E. Robbins, *President*, Boston, Mass. H. P. Sherman, *Superintendent*, Waltham, Mass. H. J. Olney, *Treasurer and Clerk of Corporation*, Waltham, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

R. E. Robbins, Boston, Mass. G. E. Allen, West Newton, Mass. Joseph Curtis, Francis Buttrick, W. W. Clark, H. P. Sherman, G. H. Shirley, L. C. Lane and H. J. Olney, all of Waltham, Mass.

REPORT

OF THE

WINNISIMMET STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

[This road is leased to and operated by the Lynn & Boston Street Railway Company.]

CAPITAL STOCK AND DEBT.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$75,000 00	
Capital stock authorized by votes of company	75,000 00	
Capital stock paid in (par value of shares, \$50)		\$50,000 00
Number of stockholders	57	
DEBT, ETC.		
Unpaid dividends		\$1,665 00
CASH ASSETS.		
Cash		\$1,824 85
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$52,500 00
Cash, cash assets and materials on hand		1,824 85
TOTAL PROPERTY AND ASSETS OF COMPANY		54,324 85
REVENUE FOR THE YEAR.		
Received from other railways as tolls or rent		\$2,550 00
Interest		132 75
TOTAL INCOME FROM ALL SOURCES		\$2,682 75
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.		
Salary of treasurer		\$84 23
Taxes, state		333 50
Office expenses, and all other expenses not included above		19 47
TOTAL EXPENSE OF OPERATING		\$437 20
NET INCOME, DIVIDENDS, ETC.		
TOTAL NET INCOME ABOVE OPERATING EXPENSES		\$2,245 55
Dividends declared, 10 per cent for the year		5,000 00
Balance for the year (deficit)		2,754 45
Surplus at commencement of year		5,414 30
TOTAL SURPLUS September 30, 1879		2,659 85

General Balance Sheet at Closing of Accounts September 30, 1879.	
DR.	
Construction	\$52,500 00
Cash	1,824 85
	\$54,324 85
CR.	
Capital stock	\$50,000 00
Unfunded debt (dividends unpaid)	1,665 00
Surplus	2,659 85
	\$54,324 85
Copy of Profit & Loss Account for the Year ending September 30, 1879.	
DR.	
To Expenses	\$437 20
Dividends	5,000 00
Balance September 30, 1879	2,659 85
	\$8,097 05
CR.	
By Balance September 30, 1878	\$5,414 30
Total income	2,682 75
	\$8,097 05
DESCRIPTION OF RAILWAY.	
Length of railway owned by company, measured as single track, exclusive of sidings, about	2 miles.
Total length of track, measured as single track, about	2 miles.
Total length of track paved	All paved.
Weight of rail per yard, and description of rail	47 lbs.

WM. R. PEARMAIN,
THOS. P. PROCTOR,
EDWARD RUSSELL,
E. F. OLIVER,
Directors.

COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, ss. November 3, 1879. Then personally appeared the above-named Thomas P. Proctor, Edward Russell and E. F. Oliver, and severally made oath to the truth of the foregoing statement by them subscribed.

EUGENE TAPPAN,
Justice of the Peace.

SUFFOLK, ss. November 4, 1879. Then personally appeared the above-named William R. Pearmain, and made oath to the truth of the foregoing statement by him subscribed.

GI O. W. MCSFS,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.
WINNISIMMET RAILROAD COMPANY,
CHELSEA, MASS.

NAME AND RESIDENCE OF OFFICERS.

William R. Pearmain, *President*, Chelsea, Mass. Erastus Rugg, *Treasurer and Clerk of Corporation*, Chelsea, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

William R. Pearmain, Chelsea, Mass. Edward Russell, Boston, Mass. Edward R. Cogswell, Cambridgeport, Mass. Erastus Rugg, Chelsea, Mass. Thomas P. Proctor, Forest Hills, Mass. E. F. Oliver, Boston, Mass. Benjamin H. Dewing, Revere, Mass.

REPORT

OF THE

WORCESTER STREET RAILWAY COMPANY,

FOR THE YEAR ENDING SEPTEMBER 30, 1879.

CAPITAL STOCK AND DEBT.		
CAPITAL STOCK.		
Capital stock authorized by charter	\$40,000 00	
Capital stock authorized by votes of company	100,000 00	
Capital stock paid in		\$40,000 00
Number of stockholders	8	
DEBT.		
Funded debt, as follows:		\$53,000 00
1st mortgage bonds due, 6 per cent interest	\$20,000 00	
2d mortgage bonds due, 6 per cent interest	20,000 00	
Mortgage notes	13,000 00	
Unfunded debt, as follows:		\$19,521 29
Notes payable	\$2,276 47	
Accounts	17,244 82	
TOTAL GROSS DEBT		\$72,521 29
Amount of cash assets:		2,251 76
Cash	\$1,202 10	
Supplies	437 19	
Debit balances	612 47	
NET DEBT		\$70,269 53
COST OF RAILWAY, EQUIPMENT AND PROPERTY.		
RAILWAY.		
TOTAL COST OF CONSTRUCTION		\$61,283 61
EQUIPMENT, LAND AND BUILDINGS.		
Horses		\$9,490 07
Cars		10,364 55
Other articles of equipment		2,603 00
TOTAL COST OF EQUIPMENT		22,457 62
Land and buildings owned by company needed in operating road		25,000 00
TOTAL AMOUNT FOR CONSTRUCTION, EQUIPMENT, ETC.		\$108,741 23
Cash, cash assets and materials on hand		2,251 76
TOTAL PROPERTY AND ASSETS OF COMPANY		\$110,992 99
PROPERTY ACCOUNTS: CHARGES DURING THE YEAR.		
New horses (number, 5)		\$750 00
New cars (number, 3)		2,350 00
Other equipment		250 50
TOTAL ADDITION TO PROPERTY		\$3,350 50

REVENUE FOR THE YEAR.	
Received from passengers on railways operated by this company, including tickets	\$38,065 13
Received from sales of manure	252 50
TOTAL EARNINGS	\$38,317 63
EXPENSES OF OPERATING THE RAILWAY FOR THE YEAR.	
Repairs of road-bed and track	\$4,626 77
Repairs of cars and other vehicles, harness and horse-shoeing	3,018 70
Repairs of buildings	57 45
Renewal of horses	1,439 50
Wages and salaries of president, treasurer, superintendent and their clerks	2,199 96
Wages and salaries of all other persons employed in operating the road	11,355 52
Provender	5,413 08
Taxes, state and local	299 35
Insurance	275 00
Damages for injuries to persons and property	9 25
Office expenses, and all other expenses not included above	3,038 92
TOTAL EXPENSE OF OPERATING	\$31,733 50
Percentage of expenses to income	\$2.81
NET INCOME, DIVIDENDS, ETC.	
TOTAL NET INCOME ABOVE OPERATING EXPENSES	\$6,584 13
Interest accrued during the year	3,711 13
Balance for the year, or surplus	2,873 00
Deficit at commencement of year	\$2,688 94
Add entries made in Profit & Loss account during the year, not included in the foregoing statement	1,712 36
Deficit at commencement of year as changed by aforesaid entries	4,401 30
TOTAL DEFICIT September 30, 1879	1,528 30
INVENTORY OF EQUIPMENT SEPTEMBER 30, 1879.	
Box-cars	15
Open cars	2
Horses	59
Harnesses (pairs of)	20
Sleighs	5
Other articles of equipment: wagon, buggy and phaeton.	
General Balance Sheet at Closing of Accounts September 30, 1879.	
Dr.	
Construction	\$61,283 61
Equipment	22,457 62
Land and buildings	25,000 00
Cash and cash assets:	2,251 76
Cash	\$1,202 10
Supplies	437 19
Accounts	612 47
Deficit	1,528 30
	\$112,521 29
Cr.	
Capital stock	\$40,000 00
Funded debt	53,000 00
Unfunded debt	19,521 29
	\$112,521 29

Copy of Profit & Loss Account for the Year ending September 30, 1879.

DR.	
To Balance September 30, 1878	\$2,688 94
Expenses	31,733 50
Interest	3,711 13
Accounts charged off	28 22
One year's interest on judgment (G. I. Stevens, trustee)	1,684 14

\$39,845 93

CR.	
By Total income	\$38,317 63
Balance September 30, 1879	1,528 20

\$39,845 93

DESCRIPTION OF RAILWAY.

Length of railway owned by company, measured as single track, exclusive of sidings	4,000 miles.
Aggregate length of switches, sidings, etc.	.620 "
Total length of track, measured as single track	4,620 miles.
Total length of track paved	All paved.
Weight of rail per yard, and description of rail: Philadelphia rail, Description of the several lines or routes operated by the company:—	45 lbs.
Main line from Harrington Avenue to Webster Square, with nine turnouts.	
Branch from Main Street to Union Passenger Station, with two turnouts.	
Total length of railway, measured as single track, not including sidings, etc., operated by this company	4 miles.

MILES RUN, ETC.

Total number of miles run during the year	140,783
Average cost per mile run	21.85 cents.
Total number of passengers carried in the cars	733,263
Total number of round trips for the year	28,875
Average number of passengers per round trip	25 $\frac{1}{4}$
Number of persons regularly employed by company	26
Rates of fare: 7 cents cash, 5 cents tickets.	

HENRY S. SEARLS,
Director.

HENRY S. SEARLS,
Treasurer.

HENRY S. SEARLS,
Superintendent.

COMMONWEALTH OF MASSACHUSETTS.

WORCESTER, ss. November 3, 1879. Then personally appeared Henry S. Searls, above named, and made oath to the truth of the foregoing statement by him subscribed.

S. B. I. GODDARD,
Justice of the Peace.

PROPER ADDRESS OF THE COMPANY.

WORCESTER STREET RAILWAY COMPANY,
WORCESTER, MASS.

NAME AND RESIDENCE OF OFFICERS.

Augustus Seeley, *President*, Danbury, Conn. Henry S. Searls, *Superintendent, Treasurer and Clerk of Corporation*, Worcester, Mass.

NAME AND RESIDENCE OF DIRECTORS LAST ELECTED.

Augustus Seeley, Danbury, Conn. Geo. H. Seeley, New York City, N.Y.
Nathan Seeley, New York City, N.Y. Geo. I. Stevens, Brooklyn, N.Y. • Henry
S. Searls, Worcester, Mass.

L'E A S E S.

LEASE.

BOSTON, CLINTON, FITCHBURG & NEW BEDFORD RAILROAD COMPANY TO OLD COLONY RAILROAD COMPANY.

THIS indenture, dated this thirty-first day of January, in the year of our Lord one thousand eight hundred and seventy-nine, by and between the Boston, Clinton, Fitchburg & New Bedford Railroad Company, a corporation existing under and by virtue of the laws of the Commonwealth of Massachusetts, party of the first part, and the Old Colony Railroad Company, a corporation existing under and by virtue of the laws of the said Commonwealth, party of the second part,

Witnesseth, That the said Boston, Clinton, Fitchburg & New Bedford Railroad Company doth hereby lease, demise and let unto the said Old Colony Railroad Company, its successors and assigns, its railroad extending from its terminus in Fitchburg to tide-water in New Bedford, together with its branch from Pratt's Junction to Sterling Junction, the branch to the Lancaster Mills, the Marlborough branch, the branch to the Sherborn prison, the Attleborough branch, the Weir branch, the Acushnet branch, the Fairhaven branch, and all other railroads and branches of railroads belonging to said party of the first part; and also all the lands on which the railroad of said party of the first part and its branches are or shall be located, or which are connected with or appertain to the uses of the party of the first part, and are its property; and all the rights, easements, franchises and privileges appurtenant thereto; and all the turnouts, branch tracks, depot grounds, wharves, water rights, stations, superstructure and fixtures connected therewith, or belonging thereto, or used therewith, and the lands on which the same are now situate or standing, so far as the same are the property of the party of the first part, and whether included in its location or not; and, generally, all and singular the real estate, tenements, franchises and appurtenances of the party of the first part, and all its cars, engines, furniture, tools, equipments, telegraph apparatus and other articles of personal property used on or about its railroad and branches, and in its stations and shops; and all the personal property of the party of the first part, however the same may be described or wherever situate, including all claims against the Framingham & Lowell Railroad Company and the Fall River Railroad Company, and excepting the items referred to upon the balance sheet of the last annual report of the party of the first part, under the heads of "Cash," "Station Balances and Connecting Roads," except as aforesaid, "Ledger Balances," "New Bedford Railroad Bonds," "Sinking Fund," "Stock in Oak Bluffs Land & Wharf Company," or the proceeds thereof, and its stock of supplies and materials on hand.

To have and to hold the same to the said Old Colony Railroad Company, its successors and assigns, for the term of nine hundred and ninety-nine years from and after the day of the date hereof. And the said party of the first part doth hereby covenant and agree with the said party of the second part, that it will at all times, upon reasonable request, execute any and all instruments that may be requisite or necessary to confirm, and to its full meaning and intent carry out, effectuate and establish the terms of this lease and agreement.

And the said party of the first part doth further covenant and agree that it will, upon the written request of the party of the second part, convey to such person or persons as the party of the second part may appoint such portions and parcels of the real estate held in fee by the party of the first part, and outside of its location, as the party of the second part may designate, and upon such reasonable terms as the party of the second part may direct at the expense of the party of the second part; but upon the express agreement, however, by the party of the second part, that all proceeds thereof, or a sum equal thereto, shall be, or shall previously have been, from the funds of the party of the second part, applied to permanent and substantial improvements upon the railroad of the party of the first part, or its branches, or connected with its real estate, and such as are not in the nature merely of renewals or repairs.

And the said party of the first part doth further covenant and agree, that, during the continuance of this lease and agreement, it will maintain its organization and existence as a body corporate, and to that end will comply with all the requisites and forms of law; and that it will, during the term of this lease, warrant and defend its railroad and franchises, and all the property demised, and all property added thereto under the provisions of this instrument, to the party of the second part, its successors and assigns, against the lawful claims of all persons claiming by, through or under the party of the first part, but against none other; and that it will do and perform all such acts at the request of the party of the second part, lawful and consistent with the rights of the party of the first part, as shall be proper and necessary for the due protection, preservation and full enjoyment by the said party of the second part of all the property, rights, franchises and interests herein demised or granted to the party of the second part, to carry into effect the true intent and meaning of this agreement; and that, in default thereof, the same may be done by the party of the second part, so far as it can lawfully do the same, or by its agents, successors and assigns, in the name and as the act of the party of the first part at the expense of the party of the first part; and, also, that the party of the second part may, at its own expense and charge, and for its own use and benefit, use the name, franchise and corporate power of the party of the first part in commencing, prosecuting and defending any suit in law or equity which may be necessary or proper to enable the party of the second part to defend, assert and maintain any right secured to it by this instrument, or to enforce payment of damages for injuries thereto, and to give due receipts, acquittances and discharges on account thereof and in relation thereto.

The party of the first part will pay all taxes and assessments whatsoever which may be payable for or in respect to the property and franchises, or any part thereof, hereby leased or assigned, and for or in respect to any and all other property added under the terms of this instrument, and upon all the shares of the capital stock of the party of the first part, or which may be levied or assessed upon it during the term of this lease.

And whereas the said party of the first part is the holder of a lease dated the twelfth day of January, in the year eighteen hundred and seventy-two, from the Framingham & Lowell Railroad Company, of its railroad and property, the party of the first part hereby agrees not to assign, cancel or surrender said lease, or voluntarily do any other act to deprive the party of the second part of the full use and enjoyment of the property thereby demised, as fully as the same is now held or enjoyed by the party of the first part; and hereby authorizes the party of the second part to operate the same, and receive the income thereof as gross earnings, under this lease; and the party of the first part agrees to pay, or cause to be paid, all the rent stipulated in said lease of

January 12, 1872, to be paid, together with all taxes necessary to be paid to secure the possession and enjoyment of the property demised by the last-named lease, during the continuance thereof; and that it will, upon request of the party of the second part, assign, so far as it can do so without affecting the validity thereof, to the party of the second part the said lease, and all the rights and property accruing thereunder, and will also provide by the instrument of assignment that the party of the second part shall be indemnified and saved harmless from and against any and all claims against the property assigned, growing out of any act or default of the party of the first part prior to the date of such assignment; but in case of such assignment, whereby the party of the second part may become liable for the rent reserved and stipulated to be paid under said lease after the date of the assignment, the amount so paid, and the amount paid for necessary taxes as above specified, by the party of the second part, shall be deducted from the rental to be paid under this indenture.

And the said party of the first part also agrees to sell and assign to the party of the second part all its iron and steel rails not laid down, and all lumber, fuel, materials and other supplies on hand for the repair and operation of its railroad, at a valuation to be fixed by Arthur B. Underhill of Boston, as of the first day of February next; and to assign to the party of the second part the contract dated December 20, 1878, with the Albany & Rensselaer Iron and Steel Company, for one thousand tons of steel rails to be delivered in April next.

And, in consideration of the foregoing, the party of the second part agrees to pay to the party of the first part, during the continuance of this lease, as an annual rental, a sum of money equal to ten and two-thirds per centum of the total gross earnings of the railroads and properties of both of the parties hereto, as they are now constituted, including all railroads and railroad properties now leased to either or both of said parties, but excepting any earnings of property of the party of the first part not hereby demised; payments to be made quarterly from and after said first day of February, as soon after the expiration of each quarter, not exceeding one month thereafter, as the accounts can be made up; and it is understood and agreed, that the term "Gross Earnings" shall be construed as including all revenue, rent, income and earnings of the party of the second part, from any and all sources, and without any exception, reservation or deduction whatsoever, excepting as follows, to wit: such "Gross Earnings" shall not include any interest on bonds or notes, or dividends on any stocks now or hereafter owned by said party of the second part, or the income of any sinking fund, or any premiums derived from the sale of stocks or bonds which may hereafter be made by it; nor any charge for the transportation of supplies, materials and workmen in the operation, renewal or extension of the railroads and properties of the parties hereto, or which are or shall be acquired under the provisions of this lease; and that of the receipts from the sale of gravel, such part only shall be added as may be a fair charge for the transportation of gravel. It being understood and agreed, that, in case a tax on gross earnings is imposed by any lawful authority during the continuance of this lease, the amount of such tax is to be deducted before the percentage is computed, which the party of the first part is to receive as rental under this lease; and the party of the second part further covenants and agrees, that the sum to be paid by it as rental, under the provisions of this lease, shall not be less, after deducting taxes and the rental of the Framingham & Lowell Railroad, than the interest for the time being on the debt of the party of the first part; which interest shall not, however, exceed the sum of two hundred and fifteen thousand dollars per annum.

And in case the party of the first part shall, at any time or times during the

continuance of this lease, desire to mortgage its railroad, franchises and real estate, or any part thereof, to secure its present or future indebtedness, the party of the second part will, upon request of said party of the first part, become a party to such mortgage so far as to secure to the bondholders, or to any trustee or trustees to be appointed by the party of the first part for the bondholders, the rental above reserved, or such part thereof as the party of the first part may request, for the payment of the interest on said bonds as the same shall accrue; and such agreement, at the option of the party of the first part, shall be expressed in writing on each of said bonds. Or upon like request the party of the second part will agree with the holders of any bonds or notes which at any time hereafter during the continuance of this lease may be issued by the party of the first part, whether secured by mortgage or otherwise, by an agreement to be expressed in writing upon each of said bonds or notes, to pay during the continuance of this lease to said holders, or for their use and benefit to a trustee or trustees to be appointed by the party of the first part, such portion of the rental above reserved as the party of the first part may direct for the payment of interest on such bonds or notes, provided the whole amount of interest so agreed to be paid shall not exceed the above-named minimum rental in any year; it being understood that all payments made by the party of the second part as interest on any such bonds or notes under the foregoing provisions shall be considered as payments of rental under this indenture; and the amount thereof shall be deducted from the payments to be made under the provisions of this indenture as the same fall due.

And the party of the second part hereby agrees to purchase at a valuation to be made by said Arthur B. Underhill, as of the first day of February next, all the stock and materials, iron and steel not laid down, fuel, lumber and other supplies for the repair and operation of the railroads then owned, leased or operated by the party of the first part, and to assume the contract above named for steel rails made with the Albany & Rensselaer Iron and Steel Company.

And the party of the second part hereby agrees to keep full and accurate books of account of all its business over its own road, as well as over the railroad of the party of the first part, but not separate accounts of each road unless at any time it elects for its own convenience to do so, and to render to the party of the first part monthly accounts of all such business; and said books of account shall be at all times open to the inspection of the directors of said party of the first part, or of any accountant appointed by them, each of whom shall have free access thereto, without charge for transportation over the roads of the parties hereto.

And the party of the second part further agrees to furnish during the term of this lease, to the officers for the time being of the party of the first part, not exceeding nine in number, free annual passes over the Boston, Clinton, Fitchburg & New Bedford Railroad and branches, on regular passenger trains; the said officers taking the risk of all personal damage, detention, injury or loss of baggage, from any cause whatsoever, on the passage. And it also agrees that the stockholders of the Boston, Clinton, Fitchburg & New Bedford Railroad Company may pass free over the railroad and branches of the last-named company to and from any stockholders' meeting held on the line of the said railroad during said term, to the same extent as the party of the second part for the time being shall permit its stockholders to pass free to and from stockholders' meetings on the line of the railroad of the party of the second part.

And the said party of the second part further agrees to expend all sums of

money received from the sales of any land hereby demised, or an amount equal thereto, as herein set forth, in permanent improvements upon or connected with the railroads or real estate of the party of the first part.

Whereas the party of the first part has contracts for transportation still unexecuted, the party of the second part doth hereby agree to assume and perform all such contracts, and to do all things therein to be done, and to save the party of the first part harmless therefrom; and the party of the second part is to have and receive all payments, emoluments and advantages to be had and received by the party of the first part, under and by virtue of the same. And the party of the second part further covenants and agrees, that it will at all times hold, use and operate said demised railroad properties in accordance with the charter of the party of the first part, and the laws of the Commonwealth of Massachusetts; that it will maintain the same in as good repair and condition as the same now are; that it will furnish all engines, cars, rolling-stock and equipment that may be necessary and proper for the due operation of the demised railroad and branches, in addition to the personal property hereby demised; that it will assume and pay all costs and expenses, and all damages to persons and property, incurred on and after the first day of February next, in the use and operation of the demised premises; and that it will make such returns as may be required by law of lessees of railroad property in Massachusetts; and further agrees fully to indemnify and save harmless the party of the first part from and against all claims, obligations, losses, liabilities or expenses, that it may in any wise incur, or become liable to, on and after said first day of February, in any manner arising or growing out of any transactions, business, negligence or misfeasance, in any way connected with the operation, management or control of said leased road or property. But nothing herein contained shall prevent the lessee from altering, taking down or removing any structure on the premises; but in such case, and in place thereof, it shall on some part of the leased premises make other improvements or erect other structures equal in value to the structures altered, taken down or removed. And the party of the second part shall have the right to use all the rolling-stock of the party of the first part on and over its road, or over any road where it can lawfully send its own cars; and may at any and all times sell the locomotives, tools, machinery, fixtures, other rolling-stock, furniture and personal property herein leased, substituting other property of equal value therefor.

The party of the second part, for and on account of the party of the first part, and as its agent, hereby agrees to operate the Framingham & Lowell Railroad in accordance with the provisions of the lease of January 12, 1872, and to indemnify and hold harmless the party of the first part against all claims and liabilities of whatsoever nature arising from said operation of said road by the party of the second part, except rental and taxes as aforesaid; and further agrees to keep separate accounts of the business, earnings and operations of the Framingham & Lowell Railroad, according to the provisions of said lease, and furnish the same to the party of the first part. And in case, at the expiration of said lease, it shall not be renewed, or if for any reason whatever it shall be sooner terminated, so as to deprive the party of the second part of the earnings and business of said Framingham & Lowell Railroad, then the rental to be paid to the party of the first part under this indenture shall be reduced for each succeeding year by the sum of thirty-five thousand dollars per annum. Provided, however, that in no event shall the termination of said lease of said Framingham & Lowell Railroad, from any cause whatever, be construed to affect or invalidate the present indenture, or to have any

other effect or operation than that of reducing the amount of rental to be received by the party of the first part, as herein provided.

These presents are upon the condition that if the party of the second part shall neglect and refuse to pay the rental herein reserved, or any part thereof, for more than six months after the same shall become due, previous notice in writing, of at least thirty days, having been given by the president and directors of the party of the first part that this neglect or refusal will be a forfeiture of this lease; or if the party of the second part shall continue to neglect, or fail to perform, any or either of the covenants on its part to be performed, for more than six months after written notice from the president and directors of the party of the first part of such neglect or failure, and that if continued it will be regarded as a forfeiture of this lease, — then, and in either of such cases, the said party of the first part may lawfully, at any time after the expiration of said six months, and while such neglect or default continues, without further notice or demand, enter into and upon the leased premises, or any part thereof in the name of the whole, and repossess the same, as of its former estate, and expel the party of the second part and those claiming under it, without prejudice to any remedies which might otherwise be used for arrears of rent or preceding breach of covenants: but nothing herein shall be considered to work a forfeiture of this lease, when the omission or delay in performing the obligations hereunder — saving only the payment of rent — results from causes reasonably beyond the control of the party of the second part, or when from any cause such omission or delay ought not in equity to work a forfeiture; and, in case of disagreement in computing the amount of the rental, a failure to pay disputed items shall not work any forfeiture until the lapse of sixty days after the final determination of the question by suit or arbitration.

And the party of the second part further agrees, that in the event of the forfeiture of this lease for breach of the conditions thereof, and entry and repossession by the lessor, it will pay over or render a sufficient equivalent for the appraised value of the personal property herein demised, upon the basis of an inventory thereof made at the time of the execution of this indenture, or immediately thereafter, as hereafter provided, and for any of said personal property sold under the authority herein given. And if at any time it shall happen that this lease shall be or become invalid, or shall be terminated without the fault of either party, then and in such case each party shall be restored as nearly as may be to the condition in which it stood before the lease was made, it being understood that the rent shall be considered equivalent to the value of the occupation.

The party of the second part shall have full power to make insurance upon any of the demised property, payable to itself in case of loss, and shall have authority to receive the same from the insurers in case of loss; and all the amounts received shall be appropriated to restoring and replacing the property destroyed, or otherwise used for making permanent improvements, not in the nature of ordinary repairs, upon the demised real estate.

In case the party of the second part shall see fit to construct any additional railroad, or to add any other railroad to its line, by lease, purchase or otherwise, the party of the first part shall have the privilege of contributing to the cost of such added railroad thirty-two per centum thereof, or in case of any leased railroad thirty-two per centum of the rental thereof, and shall thereupon be entitled to receive, in addition to the rental reserved as above named under this lease, ten and two-thirds per centum of the gross earnings of such new road, after deducting any taxes assessed thereon; and, in case it shall not

so contribute, the whole of the earnings of such new and additional railroad shall remain the property of the party of the second part; and in estimating the gross earnings of said new and additional railroad from joint business with any road subject to and operated under this indenture, in case the parties do not agree upon the division proper to be made, it shall be determined by arbitrators, as provided in this indenture.

There shall be made a full and complete inventory and appraisal, at or immediately after the execution of this lease, of all the locomotives, cars, rolling-stock, machinery and personal property of every nature and description, demised to the party of the second part by this lease, and an accurate description and appraisal made of the road, tracks, buildings, bridges and all similar property appertaining to and of the nature of real estate of the party of the first part; and a copy of such inventory, description and appraisals shall be furnished to each party, and the same shall be evidence in any and all cases in which the question of the value and condition of said property at the time of making this lease shall arise. The said inventory, description and appraisals shall be made by two disinterested persons, — one selected by each party, who, in case of any dispute or disagreement, may choose a third.

It is understood and agreed, that the lessee will not assign this lease, nor underlet the said railroads and branches hereby demised, or any part thereof, without the consent of the lessor, or those having its estate in the premises, in writing allowing thereof.

In case of any question or controversy arising between the parties hereto as to the meaning and intent of this indenture or any part thereof, or any thing done thereunder or growing out thereof, it is agreed that the same shall be referred to the arbitration of two referees, — one selected by each party, who shall have power, in case of their disagreement, to choose a third; and the award of the referees so selected, or of a majority of them, shall be final and binding on the parties.

All the covenants herein made by either party shall be binding upon its successors and assigns; and all the covenants to or with either party shall inure to the benefit of its successors and assigns in the same manner as if in each case it had been fully expressed.

In witness whereof, the Boston, Clinton, Fitchburg & New Bedford Railroad Company, by its president, Nathaniel Thayer, Jr., and the Old Colony Railroad Company, by its president, Charles F. Choate, the president of each of said companies being thereto duly authorized, have to this, and one other instrument of even date and tenor herewith, signed their corporate names, and affixed their corporate seals, the day and year first above mentioned.

Executed and delivered

in presence of

GEO. E. TOWNE,

Witness to signature of

N. THAYER, JR.

[SEAL.]

GEO. E. TOWNE,

Witness to signature of

CHAS. F. CHOATE.

[SEAL.]

BOSTON, CLINTON, FITCHBURG & NEW
BEDFORD RAILROAD COMPANY,

By NATHANIEL THAYER, JR., *President*,

Hereto authorized as a committee by the Directors.

OLD COLONY RAILROAD COMPANY,

By CHARLES F. CHOATE, *President*,

Hereto authorized as a committee by the Directors.

SUFFOLK, SS.

BOSTON, February 6, 1879.

Then personally appeared Nathaniel Thayer, Jr., as president of the Boston, Clinton & New Bedford Railroad Company, and as a committee duly authorized thereto, and Charles F. Choate, as president of the Old Colony Railroad Company, and as a committee duly authorized thereto, and severally acknowledged the above instrument to be the free act and deed of the said named companies respectively.

Before me,

GEO. E. TOWNE,

Justice of the Peace.

This memorandum witnesseth, that the terms of the above lease have, before its approval by the stockholders of the companies therein named, been agreed upon by the directors thereof, acting under votes of their respective boards.

Witness to the signatures
of the Directors of the
Boston, Clinton, Fitch-
burg & New Bedford
Railroad Company.
GEO. E. TOWNE.

N. THAYER, JR.,
N. THAYER,
GEO. A. TORREY,
C. T. CROCKER,

WM. J. ROTCH,
WM. B. WOOD,
JOHN E. SANFORD,
LYMAN NICHOLS,

*Directors of the Boston,
Clinton, Fitchburg &
New Bedford Railroad
Company.*

Witness to the signatures
of the Directors of the
Old Colony Railroad
Company.

CHARLES F. CHOATE,
URIEL CROCKER,
JACOB H. LOUD,
SAMUEL L. CROCKER,
E. W. WILLARD,
FRED L. AMES,
E. N. WINSLOW,

JOHN S. BRAYTON,
GEO. MARSTON,
ROYAL W. TURNER,
THOS. J. BORDEN,
FRANCIS B. HAYES,

*Directors of the Old
Colony Railroad
Company.*

AGREEMENT

BETWEEN THE BOSTON & LOWELL RAILROAD CORPORATION
AND THE MASSACHUSETTS CENTRAL RAILROAD COMPANY.

THIS indenture, made this thirteenth day of August, in the year 1879, between the Boston & Lowell Railroad Corporation, party of the first part, and the Massachusetts Central Railroad Company, party of the second part,

Witnesseth, That whereas the said Boston & Lowell Railroad Corporation is the owner of extensive properties in Boston and Cambridge, now being used as depots, terminal grounds and track room for said Boston & Lowell Railroad and its connections; and whereas it is the desire and intention of the Massachusetts Central Railroad Company to connect its road, now being constructed, with the said Boston & Lowell Railroad, at a junction in the city of Cambridge, and to use and avail itself of a portion of the tracks, terminal grounds, stations and facilities for the accommodation of the passenger and freight business of its road:

Now, therefore, the said parties respectively agree as follows:—

ARTICLE I. The said Boston & Lowell Railroad Corporation, party of the first part, for the considerations hereinafter named, covenants and agrees to construct and complete, in a thorough and substantial manner, at such time as is hereinafter provided, an additional track upon the Lexington Branch Railroad, from its junction with the road of the second party to the main tracks of the first party, so as to furnish a double track from said junction to Boston, for the common use of both parties hereto.

ART. II. Said first party agrees to furnish, for the freight and passenger accommodation of the second party, facilities at Boston, Cambridge and Mystic Wharf, as follows:—

For the passenger business of the second party to and from Boston, such room and facilities in common, in its passenger station, Boston, as may be reasonably required to accommodate said business; to sell tickets furnished by the second party; to handle and check baggage, said second party furnishing checks; and perform all labor appertaining to the proper reception and transit of passengers in said station.

For the freight business of the second party, to furnish suitable house and yard room for the reception and delivery of its freight; to load and unload the same to and from the cars of the second party; to bill outward freight,—the second party furnishing way-bills and blanks,—and collect all inward freight, and account for the same to the second party; to receive the cars, properly delivered in trains, at Boston, Cambridge and Mystic Wharf, and distribute the same to the respective places of unloading, and to make up the outward trains in readiness for the engines of the second party,—it being understood that reasonable accommodations are to be furnished for the express business of the second party in the yards or depots of the first party.

For the shelter of engines, passenger and baggage cars of the second party, to furnish suitable rooms and conveniences in buildings now in use or to be constructed at Cambridge or Boston.

For the general office accommodations of the president and other officers of the second party, to assign suitable rooms in the Boston passenger station.

To furnish fuel and water, and make such repairs upon the cars and engines of the second party as it may request, on such terms as may be mutually agreed upon.

ART. III. It is further agreed, that the party of the second part shall sufficiently equip and man all of its trains, and deliver and receive its passenger trains in the Boston passenger station aforesaid, and its freight trains to and from Boston and Mystic Wharf, in such places in the Boston and Mystic Wharf yards, respectively, as the first party may direct.

The shifting of the passenger trains of the second party about the station, and to and from the car-houses, shall be done by the engines and the men of the second party.

ART. IV. The party of the second part agrees to furnish its own fuel and water, and labor for handling the same, and labor and materials for cleaning its engines and cars; and in case buildings, or rooms therein, are specially assigned to its equipment, to furnish gaslight and gas fixtures and water fixtures therefor; also to pay for its own office heat and light and attendance.

ART. V. The trains and the servants of the second party are to be entirely subject to the regulations and control of the first party while they are upon the tracks and premises of the first party.

ART. VI. The second party shall not transport passengers or freight between stations on the line of the Boston & Lowell or Lexington Branch roads, nor by the fixing of rates, or in any other manner, interfere with the business of the first party.

ART. VII. The second party shall assume, and save the first party harmless from, all risks or loss to the property and passengers and employes of the second party in the depots or grounds or on the tracks of the first party; and also indemnify and save harmless the first party against all claims for injuries or damages done to persons or property by the engines or cars of the second party, and from all risks to freight after the same is loaded in cars of the second party for outward transit, and on inward freight until the same has been delivered to the first party for unloading.

ART. VIII. And in consideration of the covenants aforesaid on the part of the first party to be kept and performed, the second party does hereby covenant and agree to pay to said first party, on a distance of five miles, a *pro rata* division of the gross receipts, in proportion to the distance hauled, upon all its business to and from Boston, Cambridge and Mystic Wharf; and in addition thereto, a terminal charge of thirty cents per ton upon all freight to or from Boston or Cambridge, and fifty cents per ton on all freight to or from Mystic Wharf.

ART. IX. The second party agrees to construct and connect its railroad with the Boston & Lowell Railroad, as aforesaid, on or before the first day of November, in the year eighteen hundred and eighty-one, and to commence doing business with the first party under the terms of this agreement on or before the said time.

It is understood that no work, excepting a frog connection with the existing track, is to be commenced by the first party for the construction of the said additional track, or other structures for the use of the second party, until the road of the second party shall be opened to Hudson, nor until notice in writing has been given by the second party to the first party for such commencement.

All settlements between the parties hereto shall be made monthly; and in case of the failure of the second party to make good its payments, or claims due and payable to the first party, the first party may give written notice to the second party to terminate this contract; and if, after the expiration of thirty

days from the giving of such notice, such payment shall not have been made, then the first party shall have the right at any time thereafter, and while such payment remains unadjusted, to terminate this contract, and take possession, to the exclusion of the second party, of the tracks and property herein provided to be used by the second party.

ART. X. If from any cause the first party should hereafter change the location of any of its tracks, premises or depots, or other terminal facilities herein referred to, such change shall not in any way invalidate this contract; but the first party shall in such event be held to give reasonable accommodation to the business of the second party, not less, as compared with its accommodations for its own business, than is hereinbefore provided; but if such changes, construction or buildings, or alteration of tracks, shall be required to be made for the exclusive accommodation of the business of the second party, then the expense therefor shall be paid and borne by the second party.

At the expiration of this agreement, if the parties shall fail to agree upon the compensation thereafter to be paid and received for the services and facilities and privileges herein contemplated and embraced, or then required, the whole subject matter shall be referred to the Board of Railroad Commissioners of Massachusetts, or to three arbitrators, — one to be selected by either party, and the third by the two so selected, — whose decision and awards shall be binding upon the parties hereto for the term of five years.

In witness whereof, the parties of the first and second parts, by their respective presidents, duly authorized thereto, have hereunto subscribed their names, and affixed their respective corporate seals, the day and year first above written.

BOSTON & LOWELL RAILROAD CORPORATION,

By J. G. ABBOTT, *President*. [SEAL.]

MASSACHUSETTS CENTRAL RAILROAD COMPANY,

By SILAS SEYMOUR, *President*. [SEAL.]

LEASE.

BRANCH OF THE HOLYOKE & WESTFIELD RAILROAD TO THE
NEW HAVEN & NORTHAMPTON COMPANY.

WHEREAS by instrument dated December 3, 1870, and recorded in Hampden County Massachusetts Registry of Deeds, in book No. 282, pages 183 *et seq.*, the Holyoke & Westfield Railroad Company did lease, demise and let to the New Haven & Northampton Company its railroad from its junction with the railroad of the New Haven & Northampton Company in Westfield to its termination in Front Street in Holyoke, with all its branches, turnouts, rights of way, franchises, station grounds, lands, depot-buildings, engine-house, water stations, turn-tables and fixtures, and all the privileges and appurtenances whatsoever thereto belonging, from the time of completion and acceptance of the same thenceforth forever.

And whereas at the time of the execution of said lease, said Holyoke & Westfield Railroad Company had filed with the commissioners of said Hampden County its location of a branch railroad from the main line of the Holyoke & Westfield Railroad near South Street in Holyoke, along the second level canal to the Connecticut River, thence along said river to the premises of the Hadley Falls Paper Company; also of a branch railroad from said South Street along Race Street to Sargent Street in said Holyoke:

Now, therefore, it is hereby declared to be the true purpose, meaning and intent of said leasing clause in said instrument of date December 3, 1870, to include said branch railroads so located as aforesaid or as varied in any part of said location, with all their turnouts, rights of way, franchises, station grounds, lands, depot and other buildings, turn-tables and fixtures, and all privileges and appurtenances thereto belonging, and the same are so included and embraced in said leasing clause.

And it is further declared to be, and it is, the true purpose, meaning and intent of the stipulation in said lease contained on the part of the New Haven & Northampton Company, to equip, maintain, operate and keep in repair said railroad, its buildings, fixtures and appurtenances, that said stipulation apply to and cover said branch railroads with all their buildings, fixtures and appurtenances. And whereas said branch railroads are yet unconstructed, and said Holyoke & Westfield Railroad Company is about to construct the same, and, for the purpose of raising money for such construction, is to issue sixty bonds of the par value of one thousand dollars each, dated April 1, 1878, and payable twenty years from date with interest at six per cent per annum, payable semi-annually, April 1 and October 1, to be secured by first mortgage upon said branch railroads and their appurtenances:

Now, therefore, in consideration of the premises and of the agreements above set forth that said branch railroads and all their incidents above named are included in said leasing clause aforesaid, said New Haven & Northampton Company agrees to pay as additional rent the interest of said sixty thousand dollars bonds, according to their terms and the interest of said bonds when renewed, provided the same shall be renewed at maturity. And it further agrees, that said Holyoke & Westfield Railroad Company may retire at maturity,

if it so elect, either or both its issues of bonds, — to wit, said sixty thousand dollars bonds and the two hundred thousand dollars bonds named in said instrument of date December 3, 1870, — and issue in lieu thereof bonds which, except as to dates and rate of interest which shall not exceed six per cent per annum, shall be duplicates of said first issues, and be secured in the same way; and in that case said New Haven & Northampton Company's agreements respecting said original issues shall apply in their full extent to said renewed issues. And in case of the default of the Holyoke & Westfield Railroad Company to pay said original or renewed issues of said bonds of sixty thousand dollars and two hundred thousand dollars, or either of them, said New Haven & Northampton Company will pay the same, and shall therefore become subrogated to all the rights and privileges of first mortgagees respectively.

And it is further mutually agreed between said Holyoke & Westfield Railroad Company and the New Haven & Northampton Company, that from and after October 1, 1878, said lease of date December 3, 1870, shall be so far modified and amended as to read "thirty-five thousand two hundred" dollars, in place of "twenty-eight thousand" dollars wherever those words occur. And it is further mutually agreed between said parties, that the provision contained in said lease of date December 3, 1870, for the payment by the New Haven & Northampton Company to the Holyoke & Westfield Railroad Company of one-half of the gross receipts of said Holyoke & Westfield Railroad, from and after the payment by said Holyoke & Westfield Railroad Company of its two hundred thousand dollars first mortgage bonds at maturity, shall be so far modified and amended as to reserve from said "one-half the gross receipts" a sum equal to the interest on said sixty thousand dollars bonds during the term of said bonds. And said New Haven & Northampton Company does further agree to defend all suits, and hold and save harmless said Holyoke & Westfield Railroad Company from all claims arising from the acts of said New Haven & Northampton Company in the management and operating of said railroad and branches of said Holyoke & Westfield Railroad Company.

And it further agrees to pay all local taxes by the assessors of the city of Holyoke legally assessed upon said leased property.

And it is also further agreed that freight shall be received and delivered in car-loads on any side tracks of said branches, without any additional charge above the usual freight tariff to and from Holyoke of freight over both roads; to wit, of the New Haven & Northampton Company and the Holyoke & Westfield Railroad Company at the time of carriage.

In testimony whereof, said New Haven & Northampton Company, by Charles N. Yeamans, its president, thereto duly authorized, and the Holyoke & Westfield Railroad Company, by J. C. Parsons, its president, thereto duly authorized, have signed, sealed and executed this instrument and a duplicate thereof, this fourth day of May, A.D. 1878.

NEW HAVEN & NORTHAMPTON COMPANY,

(Signed) By CHARLES N. YEAMANS, *President.* [SEAL.]

In presence of

(Signed) J. P. BUCKLAND,
to both.

HOLYOKE & WESTFIELD RAILROAD COMPANY,

(Signed) By J. C. PARSONS, *President.* [SEAL.]

STATE OF MASSACHUSETTS, }
COUNTY OF HAMPDEN. }

MAY 4, 1878.

Then personally appeared the within-named Charles N. Yeamans, president of the New Haven & Northampton Company, and J. C. Parsons, president of the Holyoke & Westfield Railroad Company, and severally acknowledged the foregoing instrument to be the free act and deed of said respective companies.

Before me,

(Signed)

JAMES E. DELANEY,

Justice of the Peace.

HAMPDEN, SS. July 13, 1878, at 11.15 A.M., received and recorded with Hampden Deeds, book 356, page 576.

Attest:

(Signed) .

JAMES E. RUSSELL,

Register.

LEASE.

CONNECTICUT CENTRAL RAILROAD COMPANY TO THE NEW YORK & NEW ENGLAND RAILROAD COMPANY.

THIS indenture, made this fourteenth day of May, A.D. 1880, by and between the Connecticut Central Railroad Company, a corporation duly established under the laws of the State of Connecticut, of the first part, and the New York & New England Railroad Company, a corporation duly established under the laws of said State, and also under the laws of the States of New York, Massachusetts and Rhode Island, of the second part, witnesseth, —

1st. That said party of the first part hath granted, demised and leased, and by these presents doth grant, demise and lease, unto the said party of the second part, its successors and assigns, the railroad and railroad property of the said party of the first part, including therein all lands within and without the lay-out of said railroad procured for railroad purposes, its road-bed, superstructures, station-houses, depots, buildings, rails, fixtures, engines, cars, rolling-stock, machinery, tools, equipment, and all and singular its property of every kind, name, nature and description, together with any rights it now has or may hereafter acquire to the use in any manner of the railroad and property of the Springfield & New London Railroad Company, the Springfield & North-Eastern Railroad Company and the Connecticut Valley Railroad Company, or either of them, for the purpose of conducting its railroad business, and all its rights, privileges and appurtenances, and the right to demand and receive tolls, rent and every legal compensation for the use of the demised premises, or in any manner arising out of, connected with, or accruing from the operation and management of its railroad and business.

To have and to hold the said demised premises to the said party of the second part, its successors and assigns, for and during the term of fifteen years from and after the first day of June, A.D. 1880.

The said party of the second part paying and yielding therefor, as the rent thereof, the net annual earnings and income of said demised property as hereinafter provided.

Provided, however, that all payments of rent hereunder, and every installment thereof paid to said party of the first part, shall, to the extent to which it shall be necessary, be used by its treasurer to pay the interest on the first mortgage bonds of the party of the first part (said bonds being of the amount of \$325,000, and due October 1, 1895); and provided further, that said party of the second part shall have the right to pay the interest coupons of said bonds, and that all such payments shall to the extent thereof be payments under this lease, and such coupons shall be so received by the party of the first part.

2d. The party of the second part hereby covenants and agrees to use and operate the railroad and property herein demised, in accordance with the charter of the party of the first part and the laws of the State of Connecticut, and to pay all and singular the operating expenses of said railroad, including all necessary and proper repairs, renewals, additions or improvement, which said party of the second part shall deem requisite or suitable, or any proper authority shall require at any time for conducting the business of said railroad, and also any and all sums necessarily paid to any railroad company for the use of its tracks or terminal facilities; provided, however, that the party of the second

part shall not charge for the use of its own tracks and terminal facilities more than the amount now paid therefor by the party of the first part, less the expense of an engine-driver between East Hartford and Hartford, and switchmen at East Hartford and Rockville, also all sums paid for the use of cars, engines and equipment upon said railroad, and a reasonable sum for such cars, engines and equipment, provided by the party of the second part for the operation of said railroad, not exceeding for those regularly and usually employed thereon nine per centum per annum of the value thereof, provided that said party of the second part shall not build any extension of said railroad or its branches without first obtaining the consent of the party of the first part. Said party of the second part further agrees to pay or provide for any and all taxes assessed upon said railroad and property, or against said party of the first part, on account thereof, or on account of the bonds issued by said party of the first part, or issued by any town in aid of the construction of said railroad. After deducting from the income and earnings of said demised property all and singular the aforesaid payments, and all other sums the party of the second part shall necessarily pay out on account of said railroad and business, and also such sum as may be required for the expenses of the organization of the party of the first part, not exceeding the sum of two hundred dollars per annum (which sum shall be paid before any payment of interest on said bonds), said party of the second part shall pay whatever may remain unexpended of such income and earnings to the treasurer of the party of the first part, either in the coupons of said bonds, or in lawful money, on the first day of July in each and every year during the continuance of this lease or any extension thereof.

3d. Said party of the second part shall keep the accounts necessary for the making of the returns and reports to the State of Connecticut, required to be made; shall fill up and return the same, as provided by law; shall maintain the property hereby demised, during the continuance of its use and occupation thereof, under this agreement, in as good condition as when received, reasonable wear excepted; and shall restore the same in like condition at the end of the term hereby created, or upon the sooner termination of this lease.

4th. The said party of the first part shall at all reasonable times have free access to the books, papers and accounts of said party of the second part, relating in any manner to the income and earnings of said demised property, and the expenditures thereof as herein provided, and may fully examine the same, and all matters pertaining thereto.

5th. The party of the first part (the party of the second part performing and observing the covenants and agreements herein contained on its part to be performed and observed) hereby warrants to the party of the second part the quiet and peaceable enjoyment, and the full and exclusive control and possession, of the demised premises during the term of this lease (subject, however, to the rights of the holders of the first mortgage bonds of the party of the first part hereinbefore referred to), and hereby authorizes said party of the second part, at its own cost and expense, to use the name of the party of the first part in all legal proceedings, and in all cases needful for the obtaining, holding and enjoying the demised premises, and for all purposes consistent with the true scope and intent of this agreement.

6th. In case the net earnings ascertained, as aforesaid, of the demised property, paid by the party of the second part to the party of the first part for and during any year of the term of this lease, or any extension thereof, shall suffice, after paying all mortgage interest due and to fall due during such year, and any sum due to said party of the second part under the last article of this lease, to pay a dividend on all the stock now outstanding of the Connecticut Central

Railroad Company, of not less than six per cent, and thereafter any balance of such net earnings shall remain in the hands of said company, such balance shall be by it paid back to the party of the second part for the sole use and benefit of said party of the second part.

7th. In case said party of the second part shall fail to make any of the payments required to be made by it under this lease, and shall remain in default for sixty days after notice from the party of the first part that said default has occurred, then said party of the first part may re-enter upon the demised premises for condition broken, and the same thereafter have and possess as of its former estate: provided, however, that if the parties hereto should at any time differ as to whether any act or payment ought to be done or made under the provisions of this lease, then such matter of difference shall be submitted to, and finally decided by, such person as arbitrator as the parties may agree upon for the purpose; and, if they fail to agree upon the arbitrator, he shall be appointed by any judge of the Supreme Court of Errors of Connecticut, on the application of one party, and such reasonable notice as said judge may order to the other party.

8th. If the amounts owing to said party of the first part, and immediately collectible or in its possession, are insufficient to provide for the debts and obligations, except the first mortgage bonds of said party of the first part, the said party of the second part hereby agrees to pay the same upon such debts and obligations being approved by D. D. Warren, president of said Connecticut Central Railroad Company; and the amounts so paid by the party of the second part shall be deducted and retained from the income and earnings of said demised property before the payment of any of the interest coupons on said bonds.

9th. Should the income and earnings of the said demised property be insufficient in any year, during the continuance of this lease, to pay all the operating expenses, charges and outlays herein provided to be paid out of the same, and should the said party of the second part thereupon choose to pay and advance from its own funds any sums for any of the aforesaid purposes (which, however, said party of the second part shall be under no obligation to do, except as hereinbefore provided), no dividend as herein provided shall at any time be paid on the stock of said Connecticut Central Railroad Company until all such sums, if any, so advanced and paid, and all moneys paid by said party of the second part on account of the debts and liabilities of the party of the first part, as provided in the eighth article of this lease, shall have been repaid in full to said party of the second part with interest thereon at the rate of six per centum per annum.

In witness whereof, the name and corporate seal of the Connecticut Central Railroad Company has been hereto affixed by D. D. Warren, its president and agent, duly authorized in this behalf, and the name and corporate seal of the New York & New England Railroad Company has been hereto affixed by William T. Hart, its president and agent, duly authorized in this behalf, this fourteenth day of May, A.D. 1880.

THE CONNECTICUT CENTRAL RAILROAD COMPANY,
[SEAL.] By D. D. WARREN, *its President and duly authorized Agent.*

In presence of
T. M. MALTBIE, } Witness as to C. C. R.R. Co.,
P. S. BRYANT, } D. D. WARREN, *President and Agent.*

NEW YORK AND NEW ENGLAND RAILROAD COMPANY,
[SEAL.] By WM. T. HART, *its President and duly authorized Agent.*

In presence of
SIMEON E. BALDWIN, } Witness as to N. Y. & N. E. R.R. Co.,
JOHN C. PURKIS, } by WM. T. HART, *President and Agent.*

STATE OF CONNECTICUT, }
COUNTY OF HARTFORD, } ss.

On this fourteenth day of May, A.D. 1880, personally appeared D. D. Warren, president and agent of the Connecticut Central Railroad Company, and acknowledged the foregoing instrument to be the free act and deed of said company, and his free act and deed, before me.

T. M. MALTBIE,
Justice of the Peace.

STATE OF RHODE ISLAND, }
COUNTY OF PROVIDENCE, } ss.

On this twenty-second day of May, A.D. 1880, personally appeared William T. Hart, president and agent of the New York & New England Railroad Company, and acknowledged the foregoing instrument to be the free act and deed of said company, and his free act and deed, before me.

Witness my hand and official seal the day and year in this certificate aforewritten.

JOHN C. PURKIS,
Commissioner of Connecticut in Rhode Island.

INDEX TO REPORTS OF RAILROAD COMPANIES.

RAILROAD RETURNS.

	Page		Page
Ashburnham	3	Middlesex Central	129
Attleborough Branch	6	Milford & Woonsocket	131
Berkshire	8	Monadnock	133
Boston & Albany	10	Nashua, Acton & Boston	136
Boston, Barre & Gardner	19	Nashua & Lowell	139
Boston, Clinton, Fitchburg & New Bedford	24	Newburyport	145
Boston & Lowell	30	Newburyport City	147
Boston & Maine	37	New Haven & Northampton	150
Boston & Mystic Valley	44	New London Northern	156
Boston & Providence	46	New York & New England	161
Boston, Revere Beach & Lynn	52	New York, New Haven & Hartford	168
Boston, Winthrop & Point Shirley	57	North Brookfield	173
Cheshire	61	Norwich & Worcester	176
Connecticut River	66	Ocean Terminal	181
Danvers	72	Old Colony	183
Dorchester & Milton	74	Pittsfield & North Adams	192
Eastern	76	Providence & Worcester	194
Fall River	84	Rhode Island & Massachusetts	200
Fall River, Warren & Providence	87	Spencer	202
Fitchburg	91	Springfield & North-Eastern	204
Framingham & Lowell	98	Springfield & New London	208
Grafton Centre	101	Stockbridge & Pittsfield	211
Hanover Branch	104	Stony Brook	213
Holyoke & Westfield	108	Troy & Greenfield	215
Hopkinton	111	Union Freight	218
Horn Pond Branch	114	Vermont & Massachusetts	222
Lancaster	116	Ware River	225
Lee & Hudson	118	West Amesbury Branch	227
Lee & New Haven	120	West Stockbridge	229
Lowell & Andover	121	Worcester & Nashua	232
Martha's Vineyard	124	Worcester & Shrewsbury	238
Massachusetts Central	127	Housatonic, of Connecticut	241

STREET RAILWAY RETURNS.

	Page		Page
Albany Street Freight	246	New Bedford & Fairhaven	298
Arlington	248	Newburyport & Amesbury	302
Boston & Chelsea	250	Northampton	305
Cambridge	252	North Woburn	308
Haverhill & Groveland	254	Salem	311
Highland	258	Somerville	314
Lowell	263	South Boston	316
Lynn & Boston	266	Springfield	321
Lynn City	271	Stoneham	325
Malden & Melrose	275	Taunton	329
Medford & Charlestown	277	Union	332
Merrimack Valley	279	Waltham & Newton	336
Metropolitan	283	Winnisimmet	339
Middlesex	288	Worcester	342
Naumkeag	293		

LEASES, ETC.

Lease of the Boston, Clinton, Fitchburg & New Bedford Railroad Company to Old Colony Railroad Company	349
Agreement between the Boston & Lowell Railroad Corporation and the Massachusetts Central Railroad Company	357
Lease of the Branch of the Holyoke & Westfield Railroad to the New Haven & Northampton Company	360
Lease of the Connecticut Central Railroad Company to the New York & New England Railroad Company	363

ACME
BOOKBINDING CO., INC.

APR 28 1991

100 CAMBRIDGE STREET
CHARLESTOWN, MASS

